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Part II

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40 CFR Part 63

National Emission Standards for Hazardous Air Pollutants: Generic Maximum Achievable Control Technology (Generic MACT); Final Rule

Process Wastewater Provisions; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[AD–FRL–6346–9]

RIN 2060–AG91, 2060–AF06, 2060–AG94, 2060–AF09, 2060–AE36

National Emission Standards for Hazardous Air Pollutants: Generic Maximum Achievable Control Technology (Generic MACT)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates the consolidated rulemaking proposal published on October 14, 1998. Today's rule establishes our ''generic MACT standards'' program for setting national emission standards for hazardous air pollutants (NESHAP) under section 112 of the Clean Air Act (Act) for certain small source categories consisting of five or fewer major sources. As part of this generic MACT program, we are establishing an alternative methodology for making maximum achievable control technology (MACT) determinations for appropriate small categories by referring to previous MACT standards that have been promulgated for similar sources in other categories. The basic purposes of the generic MACT program are to use public and private sector resources efficiently, and to promote regulatory consistency and predictability in MACT standards development.

Today's consolidated rulemaking package includes promulgated MACT standards that have been developed within the generic MACT framework for four specific source categories that are included on our list of categories for which NESHAP are required: acetal resins (AR) production, acrylic and modacrylic fiber (AMF) production, hydrogen fluoride (HF) production, and polycarbonate(s) (PC) production.

In this consolidated rulemaking package, we are also promulgating general control requirements for certain types of emission points for hazardous air pollutants (HAP), which will then be referenced, as appropriate, in MACT requirements for individual source categories. These general control requirements are set forth in new promulgated subparts and are applicable to storage vessels containing organic materials, process vents emitting organic vapors, and leaks from equipment components. In addition, we are promulgating a separate subpart of requirements for closed vent systems, control devices, recovery devices and routing emissions to fuel gas systems or a process.

We have withdrawn the proposed process wastewater provisions from the promulgated rule. In a supplemental notice of proposed rulemaking (SNPR) published elsewhere in today's **Federal Register**, we reopen the comment period (for 30 days) specifically to request additional comment on amendments to the proposed standards for process wastewater provisions for the AR, AMF, and PC production source categories. We plan to take final action regarding the amendments to the proposed provisions for process wastewater streams by November 15, 1999 (the revised date set forth in a proposed consent decree).

EFFECTIVE DATE: The effective date is June 29, 1999.

ADDRESSES: *Technical Support Document.* The consolidated rulemaking package promulgated today is supported by a background information document (BID) that contains a summary of the public comments received on the proposal and the Administrator's responses to public comments. This document may be obtained from the docket for this rule, A–97–17, or through the Internet at http://www.epa.gov/ttn/oarpg/ramain.html or from the U.S. Environmental Protection Agency Library (MD–35), Research Triangle Park, North Carolina 27711, telephone (919) 541–2777. Please refer to ''National Emission Standards for Hazardous Air Pollutants: Generic Maximum Achievable Control Technology—Background Information for Acetal Resins, Acrylic and Modacrylic Fiber, Hydrogen Fluoride, and Polycarbonate Production Promulgated Standards,'' EPA–453/C–99–001.

Docket. A docket, No. A–97–17, containing information considered by us in the development of the proposed and promulgated standards for the generic MACT, is available for public inspection between 8:30 a.m. and 5:30 p.m., Monday through Friday (except for Federal holidays), at the following address: U.S. Environmental Protection Agency, Air and Radiation Docket and Information Center (MC–6102), 401 M Street SW, Washington DC 20460, telephone: (202) 260–7548. Our Air Docket section is located at the above address in Room M–1500, Waterside Mall (ground floor). Dockets established for each of the source categories assimilated under the generic MACT standards with this promulgation include the following: AR production (Docket No. A–97–19); AMF production (Docket No. A–97–18); HF production (Docket No. A–96–54); and PC production (Docket No. A–97–16). These dockets include source category-specific supporting information. The proposed and promulgated standards, and supporting information are available for inspection and copying. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: For information concerning the promulgated standards, contact the following at the Emission Standards Division (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711:

Information Type	Contact	Group	Phone/Facsimile/ e-mail address
AR Production	John M. Schaefer	Organic Chemicals Group	(919) 541–0296/(919) 541–3470/ schaefer.john@epa.gov
AMF Production	Anthony P. Wayne	Policy, Planning and Standards Group.	(919) 541–5439/(919) 541–0942/ wayne. tony@epa.gov
HF Production	Richard S. Colyer	Policy, Planning, and Standards Group.	(919) 541–5262/(919) 541–0942/ colyer.rick@epa.gov
PC Production	Mark A. Morris	Organic Chemicals Group	(919) 541–5416/(919) 541–3470/ morris.mark@epa.gov
Recordkeeping and Reporting Requirements.	Belinda Breidenbach	Office of Enforcement and Compliance Assurance.	(202) 564–7022
Nonsource category-specific	David W. Markwordt	Policy, Planning and Standards Group.	(919) 541–0837/ (919) 541–0942/ markwordt.david@epa.gov

The EPA Region contacts are as follows:

Information Type	Contact	EPA Office/Region	Phone
AR Production	Lee Page	Region IV	(404) 562–9131
	Robert Todd	Region VI	(214) 665–2156
AMF Production	Lee Page	Region IV	(404) 562–9131
HF Production	Robert Todd	Region VI	(214) 665–2156
PC Production	Lee Page	Region IV	(404) 562–9131
	Bruce Varner	Region V	(312) 886–6793
	Robert Todd	Region VI	(214) 665–2156

SUPPLEMENTARY INFORMATION: The SNPR, the promulgated regulatory text, and supporting documentation are available in Docket No. A–97–17 or by request from our Air and Radiation Docket and Information Center (see **ADDRESSES**). The SNPR and the promulgated regulatory text are also available on the Technology Transfer Network (TTN) on our electronic bulletin boards. The TTN provides information and technology exchange in various areas of air emissions control. The service is free, except for the cost of a telephone call. Dial (919) 541–5742 for up to a 14,400 baud per second modem. For further information, contact the TTN HELP line at (919) 541–5384, from 1:00 p.m. to 5:00 p.m. Monday through Friday, or access the TTN web site at: http://www.epa.gov/ttn.

Regulated Entities

Entities potentially regulated are those that produce AR, AMF, HF, and PC and are major sources of HAP as defined in section 112 of the Act. Regulated categories and entities include the following:

Category	Regulated entities [a]
Industry	Producers of homopolymers and/or copolymers of alternating oxymethylene units.
	Producers of either acrylic fiber or modacrylic fiber synthetics composed of acrylonitrile (AN) units.
	Producers of, and recoverers of HF by reacting calcium fluoride with sulfuric acid. For the purpose of implementing the rule, HF production is not a process that produces gaseous HF for direct reaction with hydrated aluminum to form aluminum fluoride (i.e., the HF is not recovered as an intermediate or final product prior to reacting with the hydrated aluminum).
	Producers of polycarbonate.

[a] This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that we are now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility, company, business, organization, etc., is regulated by this action, you should carefully examine the applicability criteria in § 63.1104(a)(1), (b)(1), (c)(1), and (d)(1) of the rule. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Judicial Review

Under section 307(b)(1) of the Act, judicial review of this final rule is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by August 30, 1999. Under section 307(d)(7)(B) of the Act, only an objection to this rule which was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the Act, the requirements established by today's final action may not be challenged separately in any civil or criminal proceeding brought by us to enforce these requirements.

Plain Language

In compliance with President Clinton's June 1, 1998 Executive Memorandum on Plain Language in government writing, this preamble is written using plain language. Thus, the use of ''we,'' ''us,'' or ''our'' in this notice refers to the EPA. The use of ''you'' refers to the reader, and may include industry; State, local, and tribal governments; environmental groups; and other interested individuals.

The following outline is provided to assist you in reading this preamble.

I. Why Have We Developed These Regulations?

Section 112(b) of the Act (as amended) lists 188 HAP's and directs us to develop rules to control all major and some area sources emitting HAP. On July 16, 1992 (57 FR 31576), we published a list of major and area sources for which NESHAP are to be promulgated. On December 3, 1993 (58 FR 83941), we published a schedule for promulgating standards for the listed major and area sources. Standards for the acetal resins production, acrylic and modacrylic fiber production, and polycarbonate production source categories were scheduled for promulgation by 1997. The hydrogen

fluoride production source category was scheduled for promulgation by the year 2000 but was changed to be scheduled for promulgation by 1997. We are promulgating standards for the AR, AMF, HF, and PC production source categories under a May 15, 1999 court-ordered deadline.

II. What Factors Did We Consider When Developing These Standards?

A. Promotion of Public Health and Welfare

The Act was developed, in part,

> * * * to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and productive capacity of its population [the Act, section 101(b)(1)].

Sources that would be subject to the standards promulgated for each of the source categories (i.e., AR production, AMF production, HF production, PC production) with today's consolidated rulemaking package are major sources of HAP emissions on our list of categories scheduled for regulation under section 112(c)(1) of the Act. Major sources of HAP emissions are those sources that have the potential to emit greater than 9.1 megagrams per year (Mg/yr) (10 tons per year (tpy)) of any one HAP or 22.7 Mg/yr (25 tpy) of any combination of HAP. The HAP that would be controlled with today's consolidated rulemaking package are associated with a variety of adverse health effects. Adverse health effects associated with HAP include chronic health disorders (e.g., cancer, aplastic anemia, pulmonary (lung) structural changes), and acute health disorders (e.g., dyspnea (difficulty in breathing), and neurotoxic effects.

B. Statutory and Technical Considerations

We regulate stationary sources of HAP under section 112 of the Act. Section 112(b) (as amended) of the Act lists 188 chemicals, compounds, or groups of chemicals as HAP. Under section 112, we are directed to regulate the emission of HAP from stationary sources by establishing national emission standards.

Section 112(a)(1) of the Act defines a major source as:

> * * * any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential-to-emit, considering controls, in the aggregate 10 tons per year (tpy) or more of any HAP or 25 tpy or more of any combination of HAP.

The statute requires that we establish standards to reflect the maximum degree of reduction in HAP emissions through application of MACT for major sources on our list of categories scheduled for regulation under section 112(c)(1) of the Act. We are required to establish standards that are no less stringent than the level of control defined under section 112(d)(3) of the Act (this minimal level of control is referred to as the ''MACT floor.''

We chose to regulate the AR production, AMF production, HF production, and PC production source categories under one subpart to streamline the regulatory burden associated with the development of separate rulemaking packages. All of these source categories have four or fewer major sources that would be subject to the standards. This subpart is referred to as the ''generic MACT standards'' subpart. The generic MACT standards subpart has been structured to allow source categories with similar emission points and MACT control requirements to be covered under one subpart.

In the proposal preamble, we provide a discussion on the approach used to collect and evaluate information pertaining to MACT and the rationale for our approach for determining MACT for source categories with a limited population of sources (see 63 FR 55181–55184, October 24, 1998). The rationale for the MACT determination under the MACT standards for the AR production, AMF production, HF production, and PC production source categories is also described in the proposal preamble (see 63 FR 55191–55196, October 24, 1998).

C. Stakeholder and Public Participation

Representatives of the AR production, AMF production, HF production, and PC production industries and State and local agencies were consulted in the development of the proposed standards. Documentation for stakeholder and public participation for these source categories is included in the docket for these standards (Docket No. A–97–17). Source category-specific supporting information is maintained within dockets established for each of these source categories (see **ADDRESSES** section of this preamble for Docket information).

The generic MACT standards were proposed in the **Federal Register** on October 14, 1998 (63 FR 55178). We placed the proposed notice and regulatory text, along with supporting documentation, in a docket open to the public at that time and made them available to interested parties. Public comments were solicited at the time of proposal. Comments were specifically requested on the proposed generic MACT approach and the emission point general control requirement subparts.

To provide interested parties the opportunity for oral presentation of data, views, or arguments concerning the proposed standards, a public hearing was offered on November 25, 1998 in Research Triangle Park, North Carolina.

The public comment period was from October 14, 1998 to January 12, 1999. The most significant comments and responses are discussed in section VI of this preamble.

III. What Are the Final Standards?

The final rule promulgates standards for AR production, AMF production, HF production, and PC production that include requirements that reflect existing emission point control requirements for similar sources; requirements that are source category-specific; and requirements that apply to all source categories that are regulated under the generic MACT standards subpart (e.g., general recordkeeping, reporting, compliance, operation, and maintenance requirements). Section III.A of this preamble presents the generic MACT standards subpart structure, and sections III.B through III.E present a summary of the promulgated standards applicable to each of the source categories in the final rule.

The final rule applies to process units and emission points that are part of a plant site that is a major source as defined in section 112 of the Act. The applicability section of the regulation specifies what source categories are being regulated and defines the emission points subject to the rule.

A. Generic MACT Rule Structure

The following discussion presents a summary of the structure of the standards included in the final rule.

1. Applicability

The final rule allows source categories with similar emission points and MACT control requirements to be covered under one subpart. The applicability section specifies the source categories and affected source for each of the source categories subject to the generic MACT standards. This section also clarifies the applicability of certain emission point provisions for which both the generic MACT standards subpart and other existing Federal regulations might apply.

2. *Definitions*

The definitions section of the final rule specifies definitions that apply across source categories.

3. Compliance Schedule

The compliance schedule section of the final rule provides compliance dates for new and existing sources.

4. Source Category-specific Applicability, Definitions, and Standards

The source category-specific applicability, definitions and standards section of the final rule specifies the definitions, and standards that apply to an affected source based on applicability criteria, for each source category.

5. Applicability Assessment Procedures and Methods

If you are an owner or operator of an affected source, the applicability assessment procedures and methods sections of the final rule provide procedures for you to follow when assessing whether control requirements under the standard applicability section of the rule apply. Standard applicability assessment procedures (as applicable) are footnoted in the standard requirement applicability tables specified for each source category.

6. Generic Standards and Procedures for Approval for an Alternative Means of Emissions Limitation

The remaining sections of the final rule contain provisions that apply across source categories within the generic MACT subpart. These provisions include generic compliance, maintenance, monitoring, recordkeeping, and reporting requirements. An alternative means of emission limitation to the design, operational, work practice, or equipment standards specified for each source category within the generic MACT subpart may also be established as provided in § 63.1113 of 40 CFR part 63, subpart YY (Generic MACT Standards).

B. Acetal Resins Production Standards

The AR production standard regulates HAP emissions from storage vessels storing process feed materials, process vents, and equipment leaks from compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems. Requirements are the same for both existing and new sources.

1. Storage Vessels

Storage vessels with specified sizes that store materials with specified vapor pressures are required to control HAP emissions by using an external floating roof equipped with specified primary and secondary seals; by using a fixed roof with an internal floating roof equipped with specified seals; or by covering and venting emissions through a closed vent system to one of the following:

a. A recovery device or an enclosed combustion device that achieves a HAP control efficiency ≥ 95 percent.

b. A flare.

2. Process Vents From Continuous Unit Operations (Back End and Front End Process Vents)

Front end process vents are required to control HAP or total organic compound (TOC) emissions by venting emissions through a closed vent system to a flare, or venting emissions through a closed vent system to any combination of control devices that reduces emissions of HAP or TOC by 60 percent by weight or to a concentration of 20 ppmv, whichever is less stringent. Back end process vents with a total resource effectiveness index value (TRE) less than 1.0 are required to control HAP or TOC emissions by venting emissions through a closed vent system to a flare, or avoid control requirements venting emissions through a closed vent system to any combination of control devices that reduces emissions of HAP or TOC by 98 percent by weight or to a concentration of 20 parts per million by volume (ppmv), whichever is less stringent; or by achieving and maintaining a TRE index value greater than 1.0.

3. Equipment Leaks

For equipment containing or contacting HAP in amounts ≥ 5 percent, HAP emissions are required to be controlled through the implementation of a leak detection and repair (LDAR) program for affected equipment.

C. Acrylic and Modacrylic Fibers Production Standards

The final standards for AMF production consist of standards that regulate acrylonitrile (AN) emissions from storage vessels, process vents, fiber spinning lines, process wastewater treatment systems; and equipment leaks. Requirements for individual sources are, for the most part, the same for both existing and new sources. The one exception is fiber spinning lines. The requirements for spinning lines at new or modified sources remain the same as those proposed (i.e., an 85 percent AN reduction) with the addition of an alternative performance standard that limits spinning line emissions to 0.25 kilograms AN per megagram (Mg) of fiber produced.

The requirements for existing spinning lines at existing AMF sources have been revised to better reflect existing spinning solution AN concentrations and subsequent emissions relative to the two types of polymerization processes used in the industry. Separate control requirements are being included in the final rule to reflect the differences in the two polymerization processes relative to spinning solution or spin dope residual AN concentrations and the technical feasibility of applying source reduction measures.

As an alternative to these individual source requirements, if you own or operate an affected AMF production facility you can comply with the final rule by controlling facility-wide AN emissions (not including equipment leaks) to a level such that emissions do not exceed 0.5 kilograms of AN per Mg of fiber produced (1.0 pound AN per ton of fiber produced) for existing sources, and 0.25 kilograms of AN per Mg of fiber produced (0.5 pounds AN per ton of fiber produced) for new sources.

1. Storage Vessels

Storage vessels storing process feed material would be required to control AN emissions by using an external floating roof equipped with specified primary and secondary seals; using a fixed roof with an internal floating roof equipped with specified seals; or by venting emissions through a closed-vent system to one of the following:

a. A recovery device that achieves a HAP control efficiency ≥95 percent;

b. An enclosed combustion control device that achieves a HAP control efficiency ≥98 percent; or

c. A flare.

2. Continuous Process Vents

Process vents with vent streams with a HAP concentration ≥50 ppmv would be required to control HAP emissions by venting vapors through a closed-vent system to a recovery or control device that reduces emissions of HAP or TOC by 98 weight-percent or to a concentration of 20 ppmv, whichever is less stringent, by using a flare or by venting and using any combination of combustion, recovery, and/or recapture devices. If the controlled vent stream is halogenated, emissions are required to be vented to a halogen reduction device that reduces hydrogen halides and halogens by 99 percent or to less than 0.45 kilograms per hour (kg/hr) either prior to or after (other than by using a flare) reducing the HAP or TOC by 98 weight-percent.

3. Fiber Spinning Lines

Spinning lines at suspension polymerization existing sources are required to reduce the spin dope AN concentration to 100 (ppmw) or less. No additional AN specific emission reduction levels have been identified in this final rule for these sources. No control requirements are specified in the final rule for existing spinning lines at solution polymerization sources. New and modified sources are required either to reduce AN emissions by greater than or equal to 85 percent, reduce the spin dope AN concentration to 100 ppmw, or limit spinning line emissions to 0.25 kilograms AN per Mg (0.5 lb AN per ton) of fiber produced.

4. Equipment Leaks

For equipment containing or contacting AN in amounts ≥10 percent, HAP emissions would be required to be controlled through the implementation of an LDAR program for affected equipment. This requirement applies to equipment leaks from compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, or instrumentation systems.

We chose to regulate AMF production facilities based on the control of pollutant streams containing AN. This pollutant is the principal HAP associated with and emitted from AMF production facilities. Other organic HAP constituents, where present, would only be associated with those pollutant streams containing AN. We expect that where sources control AN emissions, comparable levels of control will be achieved for other organic HAP emitted from AMF production facilities.

D. Hydrogen Fluoride Production Standards

The HF production standards regulate HAP emissions from storage vessels; process vents on HF recovery and refining vessels; bulk loading of HF liquid into tank trucks and railcars; and equipment leaks from compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, or instrumentation systems. Requirements are the same for both existing and new sources.

1. *Storage Vessels and Transfer Racks*

Storage vessels and transfer loading racks are required to control HF emissions by venting to a recovery system or wet scrubber designed and operated to achieve a 99 percent by weight removal efficiency.

2. *Process Vents From Continuous Unit Operations*

Process vents for HF recovery and refining are required to control HF emissions by venting emissions to a wet scrubber designed and operated to achieve a 99 percent by weight HF removal efficiency.

3. *Equipment Leaks*

All equipment leaks are controlled through a LDAR program.

E. Polycarbonate Production Standards

The PC production standards regulate organic HAP emissions from process vents, storage vessels, and equipment leaks. Different requirements and applicability criteria apply for existing and new sources.

1. *Storage Vessels*

Storage vessels with specified sizes that store materials with specified vapor pressures are required to control organic HAP emissions by using an external floating roof equipped with specified primary and secondary seals; by using a fixed roof with an internal floating roof equipped with specified seals; or by venting emissions through a closed vent system to a control device. Some vessels must use a closed vent system and recovery or control device, based on vessel size and the vapor pressure of the stored material.

2. *Process Vents*

Process vents from continuous unit operations and combined vent streams (combinations of streams from continuous and/or batch unit operations) that have a TRE index value less than or equal to 2.7 are required to control organic HAP emissions by venting emissions through a closed vent system to a control device that reduces total organic HAP by 98 percent by weight, or reduces the concentration of total organic HAP or TOC to 20 ppmv, whichever is less stringent.

3. *Equipment Leaks*

For equipment containing or contacting organic HAP in amounts ≥ 5 percent, organic HAP emissions are required to be controlled through the implementation of an LDAR program for affected equipment.

IV. What Are the Impacts Associated With the Final Rule?

The impacts resulting from the promulgated standards for the source categories (i.e., AR production, AMF production, HF production, and PC production) are determined relative to the baseline that is set at the level of control in absence of the rule. The emissions reductions associated with the application of the control or recovery devices for the regulated source categories are expected to be small as the AR, AMF, HF, and PC production facilities affected by this rule essentially already have a level of control equivalent to that determined to be MACT.

Based on previous impacts analyses associated with the application of the control and recovery devices required under the standards and because each of the four regulated source categories have only five or fewer major sources, we believe that there will be minimal, if any, adverse environmental or energy impacts associated with the final standards.

Likewise, based on available information, we estimate that the cost and economic impacts of the final standards for the four source categories being regulated will be insignificant or minimal. The economic analyses for each of the four source categories can be obtained from the dockets established for these source categories (see **ADDRESSES**).

V. The Legal Basis for Generic MACT Approach

A. The Generic MACT Approach

The basic objectives of generic MACT are to conserve our limited resources, avoid unnecessary duplication of effort, and encourage consistency in our regulatory determinations. The generic MACT concept is based on applying the knowledge that we have already gained in the development of MACT standards under section 112 of the Act to source categories with a small number of facilities. As the source category becomes smaller, the likelihood that the best control strategies will have already been implemented for the sources in that category also becomes smaller. Thus, as the source category becomes smaller, it is more important for us when determining MACT for existing sources to consider control strategies that have been evaluated for similar types of sources in other source categories.

Just as we need to look beyond the source category itself in determining MACT for smaller source categories, the statutory MACT floor becomes increasingly less important as a regulatory safeguard as the number of facilities used to determine it declines. This is not only because the existing emission controls in a small source category are likely to be less representative of the range of practical technologies and strategies. It also is because, in the larger source categories,

the MACT floor is derived from a subset of all sources in the category which have achieved greater control.

While we have concluded that the statutory scheme is in fact somewhat ambiguous with respect to deriving a MACT floor for source categories with five or fewer sources, in developing the generic MACT concept, we have nevertheless assumed that compliance with the MACT floor is required in all instances. However, we also have concluded that there are circumstances where we may reasonably determine compliance with the MACT floor without a separate numerical analysis. One circumstance where we believe a non-quantitative evaluation may be appropriate occurs when the information we have collected concerning sources in a small category (i.e. a category with five or fewer sources) supports a basic premise that they are similar to a larger group of previously regulated sources, and where we adopt a MACT standard which is based on the prior MACT determinations for the larger group of sources. In this circumstance, the small number of sources in the category, our prior experience with MACT determinations for similar sources in other categories, and the efficacious use of public and private resources make a non-quantitative evaluation of MACT floor compliance appropriate.

In each of the prior standards from which a generic MACT standard is derived, we selected a level of control equal to or greater than the MACT floor for the category in question, and each of those MACT floors was itself derived from a subset of the category in question consisting of the best-controlled facilities. So long as our evaluation of the sources in a small category according to our criteria for similarity (as summarized below) indicates that they are like the sources we previously regulated, and we do a separate MACT analysis rather than adopting a generic standard whenever we find that the sources in the small category have achieved greater control or are otherwise unlike the previously regulated sources in a meaningful way, we believe that a generic standard will meet all the statutory requirements.

Several commenters stated that the proposed generic MACT approach does not comply with the statutory scheme because a two-step analysis beginning with a numerical MACT floor determination is mandatory. To the extent that these comments are based on an assumption that our practice has always been to prepare a quantitative MACT floor analysis for a particular group of emission points before determining MACT for those emission points, this premise is incorrect. In some instances, we have determined that a particular MACT requirement is sufficient to assure compliance with the MACT floor based on a qualitative analysis of the emission points in question.

We are not suggesting that the question of compliance with the statutory MACT floor can be disregarded. If the commenters have concluded that we intend to ignore this issue in developing generic MACT standards, they have misunderstood our proposal. However, to the extent that the commenters instead are arguing that we have no discretion to establish alternate methodologies for determining compliance with the MACT floor, we disagree.

Even if we assume that the MACT floor provision applies to small categories, the statute requires only that we conclude that the MACT floor has been met by the promulgated standard. We do not agree that the statute requires us to use exactly the same methodology in every instance. A recent decision by the D.C. Court of Appeals expressly held that we ''have wide latitude in determining the extent of data-gathering'' required to determine compliance with the MACT floor, and that we may base our conclusions on a ''reasonable inference.'' *Sierra Club* v. *EPA*, No. 97–1686 (D.C. Cir. March 2, 1999), slip op. at 7–9.

No source category will be selected for inclusion in the Generic MACT program until we have collected the information pertaining to sources in that category necessary to evaluate such sources according to the specific criteria for similarity set forth below. In practice, these criteria cannot be applied unless we have collected information which would also be sufficient to permit a general qualitative assessment of those existing controls which would represent the MACT floor for that category. If the information we have collected for a category which is a candidate for Generic MACT suggests that a MACT standard derived from our prior MACT determinations for sources in other categories would be less stringent than a MACT floor derived from such existing controls, we will not utilize Generic MACT in that instance. We believe our process for seeking early stakeholder involvement in development of a proposed standard will assure that we have sufficient information concerning existing emission controls at affected facilities to apply these criteria.

Generic MACT standards will always be adopted by notice and comment rulemaking. If we have incorrectly evaluated the issue of MACT floor compliance, affected sources in the category and other interested persons will have an opportunity to point this out during the comment period. If we conclude, based on such comments, that a small source category or one or more facilities within a small source category is not an appropriate candidate for generic MACT, we will not use our generic data base to determine MACT for that category or facility.

There were no commenters who argued directly that a standard developed using the generic MACT approach might be insufficiently stringent to satisfy the MACT floor, although certain industry commenters did state that omission of a separate numerical MACT floor analysis is impermissible. In evaluating this argument, we believe that the key point is that the standard that affected industry sources must ultimately meet is MACT itself, not the MACT floor.

If we were to erroneously adopt a Generic MACT standard less stringent than the MACT floor, this would have no adverse effect on the sources in question. Moreover, if we correctly determine MACT for a small source category and the resultant standard happens to be more stringent than the MACT floor for that category, the manner in which we determined compliance with the MACT floor would not be relevant when assessing any effect on the sources in question.

The commenters may believe that doing a quantitative MACT floor analysis will assist us in discovering meaningful differences between the sources in a small category and the larger groups of facilities used in deriving the generic MACT standard to be applied to that category. These commenters may be concerned that our utilizing a generic approach in developing certain MACT standards will cause us to disregard such differences. This type of concern about the quality of our analysis on the issue of similarity is reasonable. We agree that the issue of similarity must be carefully evaluated before we elect to utilize a generic MACT approach for sources in a small category.

One industry commenter states that the generic MACT approach does not meet statutory requirements because we must perform a ''cost-benefit evaluation'' for each decision to impose control requirements beyond the MACT floor. This commenter contends that this cost-benefit evaluation must be based on the incremental costs and benefits of additional controls as compared to the MACT floor. This

commenter also asserts that this cost-benefit analysis would consider potential differences in ''public exposure'' and ''health benefits'' between the sources in a small category and the sources from which a generic MACT standard was derived. These comments do not correctly interpret statutory requirements.

We are required to consider the cost of achieving emission reductions, and any non-air quality health and environmental impacts and energy requirements, in deciding what level of control constitutes MACT. This basic statutory requirement is applicable to all MACT standards, including any proposed generic MACT standard. Those emission controls which have already been demonstrated at facilities in the source category in question are obviously relevant to our determination of MACT. But the commenter is incorrect in implying that there is a direct connection between calculation of the MACT floor and the determination of MACT itself.

The assertion by this commenter that public exposure or the direct health benefits of reductions in HAP emissions are a factor in establishing MACT is also incorrect. Congress created the present statutory approach requiring MACT standards to replace a prior process where NESHAPs were based on health risks rather than on the practicality of controls. Although we do not consider health risks in determining MACT, the relative magnitude of the incremental emission reductions which particular controls would achieve may be an element in our determination whether particular controls would be cost effective. Moreover, there are other Section 112 programs such as the urban strategy and residual risk assessment where we will be considering the potential health risks presented by HAPs.

If a commenter persuades us that there are differences between a source or group of sources and the source categories from which we derived a generic MACT standard, and that these differences are sufficiently material to make adoption of that standard inappropriate (taking into account the cost of achieving emission reductions, and any non-air quality health and environmental impacts and energy requirements), we will establish MACT for that source or group of sources by an alternative methodology. In instances where it is appropriate, we may adopt such an alternative final standard as part of an existing rulemaking. We may also use elements of one of the standard standards in formulating an alternative standard for that source or group of sources.

Indeed, there is an example of this approach among the standards we are promulgating today. We originally proposed to apply the same generic standard to all AMF production facilities. During the comment period, one of these facilities persuaded us that there are significant differences between AMF spinning operations and the sources from which we derived the proposed standard for spinning operations, which make emission controls based on enclosure of AMF spinning impractical. The degree of control which is attainable without enclosure also differs depending on whether an existing facility uses a suspension polymerization or solution polymerization process. The final standard includes separate requirements for each of these two types of spinning operations, but is otherwise based on generic MACT procedures.

B. Criteria for Determining Suitability of Generic MACT

Three commenters noted that the criteria which we will use in deciding whether a small source category is a suitable candidate for use of generic MACT were discussed in the preamble of the proposal but were not included in the proposed regulatory text. These commenters recommended that we incorporate such criteria in the regulatory text.

We agree that objective criteria for making the determination of similarity are needed and that we should apply such criteria in a consistent manner each time we elect to utilize generic MACT procedures. We also agree that we should discuss the criteria we are utilizing, and the manner in which we have applied such criteria, whenever we decide that a small source category is an appropriate candidate for the generic MACT approach.

Although we do not believe that it is necessary that we incorporate such criteria in specific regulatory text, for the sake of clarity we will restate our criteria here. In deciding whether or not a source category or subcategory is sufficiently similar to a group of sources that we have previously regulated that it would be appropriate for us to derive generic control requirements from prior MACT determinations, we will consider each of the following factors:

(1) Differences in the volume and concentration of HAP emissions,

(2) Differences in the type of HAPs emitted,

(3) Differences in the type of emission points subject to control,

(4) Differences in the technical practicality and cost-effectiveness of emission controls,

(5) Whether the source category or subcategory being considered for generic control requirements presents unusual hazards that may have caused prior adoption of control requirements more stringent than those which would be derived from prior MACT determinations, and

(6) Whether sources in the source category or subcategory being considered for generic control requirements have already achieved emission limitations more stringent than those which would be derived from prior MACT determinations. In addition to these criteria, we may also decide to consider other factors in making future similarity determinations.

One commenter also raised a specific concern about the issue of similarity which suggests that the commenter did not fully understand our position. In the preamble we discussed factors which might undercut ''the basic premise that [a small source category] is similar to the larger group of previously regulated sources.'' The commenter interpreted this statement as indicating that we might start with a basic premise of similarity for source categories under consideration for generic MACT which must then be refuted. This is an incorrect interpretation. We were referring to the basic premise of similarity which must be satisfied before we conclude that use of generic MACT is appropriate. We will apply our criteria first and will not select a source category for inclusion in generic MACT if we conclude that it is different in a material way from the sources we have previously regulated.

C. Adequacy of Notice and Comment

One commenter argues that, since sources in a small source category could not have anticipated that previous MACT determinations for large source categories would serve as precedents for the MACT determination for their source category, generic MACT procedures deny due process to such sources. We strongly disagree with this argument. Things we learn in developing one standard are often useful when we develop subsequent standards. There is no reason why we should not use our previous experience in a constructive manner merely because a regulated party did not participate in the prior rulemaking.

Each time generic MACT procedures are used, we will do notice and comment rulemaking. Each source in a small source category will have a full opportunity to explain why our

previous experience does not apply to its circumstances, or to argue otherwise that the source category is not a suitable candidate for the generic MACT approach.

D. Date for Determining New Sources

One commenter expressed concern that sources in small categories subjected to Generic MACT in the future would be considered new sources if constructed or reconstructed after the proposal date for this current rulemaking. This result would not be reasonable and is not our intention. The date used to determine whether a source is a new source under section 112(a)(4) will be the date on which we specifically propose to apply Generic MACT standards to the source category in question.

VI. What Are the Significant Comments and Changes Made on the Proposed Standards?

A complete summary of the public comments on the generic MACT standards and our responses are presented in the BID for the promulgated standards, as referenced in the **ADDRESSES** section of this preamble. The summary of comments and responses in the BID serve as the basis for the revisions that have been made to the standards between proposal and promulgation. We received many comments addressing a wide variety of issues, including the generic MACT approach and the proposed standards. The comments have been carefully considered, and, where determined to be appropriate by the Administrator, changes have been made in the promulgated standards.

The following sections discuss the most significant issues raised by commenters and our responses to them.

A. MACT for Acrylic and Modacrylic Fiber Production—Changes Made Since Proposal

1. Definitions

In today's final rule for AMF production, a definition of ''spin dope'' has been added to resolve applicability issues and to clarify the intent of the standards for spinning lines under the rules. In the proposed rule, spinning line control requirements were based on an applicability cutoff for AN concentration in the ''spinning solution or spin dope.'' Commenters stated that the use of the term spinning solution alone could cause some confusion because the bath into which the fiber polymer and solvent mixture (i.e., spin dope) is extruded is also referred to in these terms. They also suggested that the term ''spin dope'' be defined to clarify that the concentration cutoff refers to the AN content of the mixture of polymer and solvent that is fed to the spinneret to form the fibers. The final rule contains the definition of spin dope and clarifies the use of both terms, spinning solution and spin dope, for purposes of applicability to control requirements.

2. Standards for Spinning Lines

During the spinning process, unreacted monomer and organic solvent used to dissolve the polymer are volatilized into room air. Major process fugitive emission points include the filtering, spinning, washing, drying and crimping steps.

At proposal, we concluded that if enclosures were constructed to capture the spinning process emissions, the resulting enclosed emission streams would have similar characteristics to the process vent streams covered by other parts of this standard where we had already determined MACT for similar vents in the chemical and related industries. This is the basis for the synthetic fiber new source performance standard (NSPS), 40 CFR Part 60 Subpart HHH, regarding volatile organic compound (VOC) emissions. Because of the AMF industry fiber spinning emission similarities, we concluded that MACT for AMF fiber spinning lines with a spinning monomer AN concentration equal to or greater than 100 ppmw was the use of an enclosure around the spinning and washing areas of the spinning line and venting the captured emissions of the enclosure to an appropriate control device. The overall AN emission reductions proposed were to achieve overall control efficiency of greater than or equal to 85 percent by weight. This value was proposed and is based on the assumption that the enclosure achieves a minimum capture efficiency of 90 percent by weight, and the captured vapor stream is routed to an organic recovery or destruction control device that achieves a total HAP reduction of 95 percent by weight or greater.

The proposed rule contained flexibility for facilities in selecting methods to reduce HAP emissions from their operations. There are two types of polymerization and spinning operations utilized at AMF production plants: solution and suspension processes. Several of the plants using the suspension process have used source reduction/pollution prevention techniques to significantly reduce the amount of residual AN monomer in the fiber spinning solution or spin dope. By reducing the AN content prior to spinning and fiber processing, this source reduction technique reduces the amount of AN that is ultimately volatilized into the room air and emitted to the atmosphere. The proposal preamble argued that it was appropriate to establish an alternative for those owners and operators who prefer to use source reduction or pollution prevention measures to reduce spinning line AN emissions rather than install capture/add-on control systems for their spinning lines under the individual source standards. Specifically, a maximum limit on the residual AN content within the spinning monomer which provided a level of AN emission control comparable to add-on controls was proposed. This was represented by the 100 ppmw cutoff in table 2 of the proposed rule. Therefore, in the proposed rule, capture/add-on control systems were required only for those spinning lines using a spinning solution or spin dope having a total organic HAP (i.e., AN monomer) concentration equal or greater than 100 ppmw. The 100 ppmw criterion or action level was based on estimates of the amount of residual AN monomer in the spin dope found in suspension polymerization process with application of source reduction measures (i.e., pollution prevention) to remove the residual AN prior to spinning.

Public comments on the proposal argued that the similarity arguments regarding capture/add-on control systems were not valid. They also argued that there are differences between existing solution and suspension processes which need to be considered in establishing emission limits for existing processes. We reassessed the control requirements for spinning operations based on these comments. In doing so, a series of questions were considered, as outlined in the following paragraphs.

i. *Are there capture/control systems being used on spinning operations in this industry? Do we have MACT regulations requiring capture/add-on control for similar processes in other industries?* In practice, there are no AMF production facilities within this source category which have enclosed and captured the emissions from their spinning lines and vented them to a control device. The success of add-on controls system applications to existing fiber spinning lines relies on enclosure of the existing spinning lines. The MACT process vent rules used as the basis for the similarity argument in the proposal preamble apply to processes which are typically already enclosed (e.g., reactors) or very easily enclosed as a normal part of the process, whether

the emissions are controlled or not. Enclosing spinning operations requires consideration of a variety of factors such as worker access and safety requirements that must be factored into retrofitting designs unique to this industry. We have not been able, at this time, to identify MACT standards beyond those considered at proposal which apply to situations sufficiently similar to the AMF spinning lines to use as the basis for a similarity argument.

Some existing spinning line processes are subject to the NSPS for synthetic fiber production plants. The commenters pointed out that these spinning lines are in compliance with the NSPS through source reduction measures rather than the NSPS identified reduction techniques of installing enclosures and add-on control devices. As a result of our review of the spinning line emissions and proposed rule basis of enclosure and control, we have concluded that the original assumption of similar enclosure and control applications does not apply to these existing spinning lines.

ii. *Can the pollution prevention control techniques being used by several of the plants with suspension spinning operations be used for the solution process in existing facilities?* Although the air emission and source characteristics for all other emission point types (i.e., tanks, equipment components, wastewater treatment units) are similar throughout the source category, the solution and suspension processes associated with the spinning operations differ from each other in the processing steps and the acrylonitrile concentrations in the process materials and associated emissions. Solution polymerization spin dope for fiber production contains, by product and process design, a significantly higher concentration of residual AN monomer than does suspension polymerization. The public comments argued that the application of the pollution prevention techniques being used for suspension processes (e.g., steam stripping of excess monomer, scavenger solvents) to existing solution processes is not viable because of the physical nature of the solution polymerization process. Specifically, application of high efficiency residual AN polymer steam stripping (incorporated to reduce downstream emissions) is technically feasible to incorporate into the suspension process and is not feasible for a solution polymerization process because the latter does not produce a solid polymer product that can be introduced to direct steam contact without contamination. At solution polymerization facilities, other pollution prevention or source reduction measures which formed the initial technical basis for determining the 100 ppmw action level for all spinning lines may not be capable of achieving the higher AN removal rates of the higher residual monomer concentration present in solution polymerization fiber spinning operations. We agree with the public comments that incorporating the pollution prevention techniques to an existing solution process spinning line is not viable.

iii. *Are there any other control systems that could be applied to the solution process?* We considered control of all HAP emissions from the entire building's exhaust system. Such an exhaust would have very high flow/low pollutant concentration stream; such streams are typically difficult to control to a high level of efficiency and also require very large, expensive control devices. In addition, the public comments pointed out that retrofitting carbon adsorption to the building exhaust may not be a technically viable alternative for existing AMF spinning lines. This is because low volatility organic solvent is typically used in the solution process to provide the reductions of VOC emissions to meet the NSPS. This solvent has a much higher molecular weight and boiling point than either the AN or organic solvents typically used. Solvents are also present in a higher emission exhaust concentration relative to the AN; thus, exacerbating common carbon bed adsorption/desorption problems. This is a reasonable argument with respect to the specific solvent formulation and concentration anticipated at the emission point (building exhaust). The use of activated carbon appears to have limited feasibility because of carbon adsorption interferences caused by the non-HAP, low volatility organic solvent used in the spinning process. In addition, the presence of a solvent with a high boiling point makes cost-effective measures such as on-site regeneration of the activated carbon less effective or viable for consideration. We, therefore, have not identified at this time a basis for requiring building exhaust control systems for solution processes. There can also be potential difficulties associated with retrofitting other conventional control technologies at existing fiber spinning lines. The particular solvents used on some spinning operations may require that a scrubber be installed in addition to a catalytic or thermal incinerator to control pollutants generated as by-products of combustion. In addition, the catalyst used for catalytic incineration devices may also be limited because the solvent used in some of the affected existing operations will foul or poison conventional catalyst.

iv. *What changes need to be made to the final rule for existing sources to reflect these considerations?* We concluded that there is no basis at this time to require capture and control systems for existing AMF fiber spinning operations. Therefore, the 85 percent control requirement is being removed for existing AMF spinning operations.

In addition, the solution and suspension processes are being treated separately in the final rule to better reflect spin dope AN concentrations and subsequent emissions relative to the two types of polymerization processes used in this industry. The performance requirement based on source reduction measures (i.e., formatted in terms of the spin dope AN concentration) is being retained for existing suspension polymerization processes; this will ensure that facilities continue to use the techniques they have already adopted. Therefore, a separate performance requirement or emission limit (i.e., the 100 ppmw spin dope criterion for suspension polymerization) is being included in the final rule to reflect the differences in spinning solution or spin dope residual AN concentrations and the technical feasibility of applying source reduction measures at existing facilities. In the proposed rule, the spin dope concentration limit was formatted as an applicability criterion for the spinning line control requirements; in the final rule, the format has been changed to specify the limit as an alternative performance standard. This is considered a format change only and does not result in any substantive changes to the source requirements. No control requirements are specified for solution polymerization processes at existing sources. We will reexamine the applicability of various control system options for spinning operations using the solution process during the residual risk analysis phase of these standards. Any new information will be collected and the viability of systems designed specifically for this industry will be assessed.

v. *Are there any changes for new sources?* The final requirements for AMF fiber spinning lines that are part of a new or modified source remain as proposed. The operating and design constraints that limit the application of enclosures and controls at new spinning operations (e.g., selection of solvents from a variety of possible solvents used for particular fibers, reactor process

modifications to accommodate new monomers, spin line configuration layouts, and other process and site considerations), are not limiting factors for new and modified sources; therefore, the new and modified source MACT requirements are not being significantly revised. The 85 percent reduction option has been retained for new sources in order to provide flexibility for future development of means to achieve equivalent emission reductions, and the source reduction performance limit (i.e., the 100 ppmw spin dope concentration) is also included to provided operational and control flexibility.

An additional control option for new and modified sources that was not proposed is being added to the final rule. This option is part of the individual source standards in § 63.1103(b)(3)(i) and allows the owner or operator to reduce AN emissions from a spinning line that is a part of a new or modified source to less than or equal to 0.25 kilograms per Mg of fiber produced (i.e., 0.5 lb per ton). This alternative standard will allow greater flexibility to facility owners and operators in selecting the type of controls, including pollution prevention measures, that can be applied to their spinning operations to reduce HAP emissions.

An additional change is being made to the AMF standards to correct an inadvertent typographical error. In Table 3 to § 63.1103 that lists the requirements for owners and operators complying with paragraph (b)(3)(ii) of the section, the facility-wide emission limits are presented as ''. . . less than or equal to 1.0 kilograms (kg) pf acrylonitrile per megagram (mg) of fiber produced'' for existing sources and ''* * * less than or equal to 0.5 kilograms (kg) of acrylonitrile per megagram (mg) of fiber produced'' for new sources. These values should read ''* * * less than or equal to 0.5 kilograms (kg) of acrylonitrile per megagram (mg) of fiber produced (i.e., 1.0 pound AN per ton of fiber produced)'' for existing sources and ''* * * less than or equal to 0.25 kilograms (kg) of acrylonitrile per megagram (mg) of fiber produced (i.e., 0.5 pound AN per ton of fiber produced)'' for new sources. The correct values for the emissions limits are clearly stated in the preamble to the proposed rule (63 FR 55185, October 14, 1998). These same values are also included in our presumptive MACT document (Docket Item 11–A–5 in Docket No. A–97–18) that was developed in collaboration with the industry and State and local agencies.

B. Process and Maintenance Wastewater Stream Provisions

Two commenters provided comment on the process wastewater stream provisions proposed on October 14, 1998. One commenter provided that the proposed provisions do not specify the location for determining HAP concentration. The commenter stated that it seems appropriate to make this determination at the entrance to each wastewater treatment system unit. The commenter recommended that a definition for ''point of determination'' be made and that references to ''point of generation'' be changed to ''point of determination.'' The commenter also stated that an owner or operator should be allowed to use all of the test methods specified in subparts F,G, and H of this part (collectively known as the ''HON'') when determining HAP concentrations in wastewater.

Another commenter stated that there was no information or requirements for treatment or destruction of wastewater streams leaving the process unit, and that the proposal only requires control of secondary emissions from equipment handling the wastewater stream.

Based on comments received, and evaluation of the proposed process and maintenance wastewater stream provisions, we agree that the proposed process and maintenance wastewater stream provisions were not adequate. In addition to the identified applicability procedures and treatment requirement deficiencies, we identified a number of other deficiencies in the proposed standards that were not intended.

Therefore, we have deferred taking final action regarding provisions applicable to process and maintenance wastewater streams for the AR, AMF, and PC production source categories. We have withdrawn the proposed process and maintenance wastewater provisions from the promulgated rule.

In a SNPR published elsewhere in today's **Federal Register**, we reopen the comment period specifically to request additional comment on proposed amendments to the promulgated standards for process and maintenance wastewater for the AR, AMF, and PC production source categories. The amendments to the promulgated standards incorporate and cross-reference appropriate process and maintenance wastewater provisions of the HON for the AR, AMF, and PC production source categories. These amendments respond to comments received, eliminate identified deficiencies that existed in the proposed standards, and reflect our intent.

We plan to take final action regarding the amendments to the proposed provisions for process wastewater streams for the AR, AMF, and PC production source categories by November 15, 1999.

VII. Administrative Requirements

A. Docket

The docket is an organized and complete file of the administrative record compiled by us in the development of this rule. The docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of basis and purpose of the proposed and promulgated standards and our responses to significant comments, the contents of the docket will serve as the record in case of judicial review (except for interagency review materials) (see 42 U.S.C. 7607(d)(7)(A)).

B. Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to OMB under the *Paperwork Reduction Act*, 44 U.S.C. 3501, *et seq.* An Information Collection Request (ICR) document has been prepared by us (ICR No. 1871.02) and a copy may be obtained from Sandy Farmer, OPPE Regulatory Information Division, U.S. Environmental Protection Agency (2137), 401 M Street, SW, Washington, DC 20460 or by calling (202) 260–2740. The information requirements are not effective until OMB approves them.

The information collections required under this rule are needed as part of the overall compliance and enforcement program. The information will be used by us to ensure that the regulated entities are in compliance with the rule. In addition, our authority to take administrative action would be reduced significantly without the collected information. The recordkeeping and reporting requirements are mandatory and are being established under section 114 of the Act. The generic MACT standards require owners or operators of affected sources to retain records for a period of 5 years. The 5-year retention period is consistent with the General Provisions (subpart A) of 40 CFR part 63, and with the 5-year record retention requirement in the operating permit program under title V of the Act.

All information submitted to us for which a claim of confidentiality is made will be safeguarded according to our policies set forth in title 40, chapter 1, part 2, subpart B, Confidentiality of Business Information (see 40 CFR part 2; 41 FR 36902, September 1, 1976; amended by 43 FR 3999, September 8, 1978; 43 FR 42251, September 28, 1978; and 44 FR 17674, March 23, 1979).

The total estimated annual average hourly and annual average cost burden per respondent for the standards for the AR production, AMF production, HF production, and PC production source categories are 6,125 hours and $262,700. These burden hour and cost estimates for monitoring, recordkeeping, and reporting are aggregated for affected sources and averaged over the first 3 years of the rule.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

Any Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for our regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

C. Executive Order 12866

Under Executive Order 12866 (58 FR 51735, October 4, 1993), we must determine whether the regulatory action is ''significant'' and therefore subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Order defines ''significant regulatory action'' as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more, or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, we have determined that this final rule may be construed as a ''significant regulatory action'' under criterion (4) above. Today's final rule may be considered novel in certain respects because it includes new policies and procedures pertaining to a generic MACT program, which will be utilized by us in establishing NESHAP under section 112 of the Act for certain small source categories consisting of five or fewer sources. As part of this generic MACT program, we will be using an alternative methodology under which the we will make MACT determinations for appropriate small categories by referring to previous MACT standards that have been promulgated for similar sources in other categories. The basic purposes of this generic MACT program are to use public and private sector resources efficiently and to promote regulatory consistency and predictability in MACT standard development.

D. Executive Order 12875

Under Executive Order 12875, we may not issue a regulation that is not required by statute and that creates a mandate upon a State, local or tribal government, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by those governments, or we consult with those governments. If we comply by consulting, Executive Order 12875 requires us to develop an effective process permitting elected officials and other representatives of State, local and tribal governments ''to provide meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates.'' Today's rule implements requirements specifically set forth by the Congress in section 112 of the Act without the exercise of any discretion by us. Accordingly, the requirements of section 1(a) of Executive Order 12875 do not apply to this rule.

E. Regulatory Flexibility Act/Small Business Regulatory Enforcement Fairness Act of 1996

The Regulatory Flexibility Act (RFA) of 1980 (5 U.S.C. 601, *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), requires the EPA to give special consideration to the effect of Federal regulations on small entities and to consider regulatory options that might mitigate any such impacts. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions.

Each of the specific MACT standards adopted in this rulemaking applies to a source category with five or fewer major sources; therefore, this rule will not have a significant impact on a substantial number of small entities, and a regulatory flexibility analysis was determined to be unnecessary.

The Generic MACT procedures we are announcing today may also be applied to other small source categories in the future. Moreover, it is possible that the MACT standards for some larger source categories may reference or incorporate some element of the generic standards we are adopting for certain types of emission points. In any case, the nature of any regulatory impacts and the applicability of RFA requirements are matters that will be separately addressed in any subsequent rulemaking that utilizes Generic MACT procedures or incorporates generic standards.

Although it was not required by the statute, we conducted a limited assessment of possible outcomes and the economic effect of the proposed standards on small entities as part of the economic analysis conducted before proposal for each of the source categories for which standards are being promulgated. These limited assessments showed no adverse economic effect for any small entities within any of these source categories. Changes that have been made since proposal do not change the results of these assessments. The economic analysis for each of the source categories for which standards are being promulgated can be obtained from the source category-specific dockets established for each of the source categories (see *Docket* in **ADDRESSES** section for individual docket numbers).

F. Unfunded Mandates Reform Act

Under section 202 of the Unfunded Mandates Reform Act (UMRA) of 1995, Pub. L. 104–4, we must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local or tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Section 203 requires us to establish a plan for obtaining input from and

informing, educating, and advising any small governments that may be significantly or uniquely affected by the rule.

Under section 205 of UMRA, we must identify and consider a reasonable number of regulatory alternatives before promulgating a rule for which a budgetary impact statement must be prepared. The Agency must select from those alternatives the least burdensome alternative for State, local, and tribal governments and the private sector that achieves the objectives of the rule, unless the Agency explains why this alternative is not selected or unless the selection of this alternative is inconsistent with law.

Because this final rule does not include a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year, we have not prepared a budgetary impact statement or specifically addressed the selection of the least costly, most cost-effective, or least burdensome alternative. In addition, because small governments will not be significantly or uniquely affected by this rule, we are not required to develop a plan with regard to small governments. Therefore, the requirements of UMRA do not apply to this final rule.

G. Submittal to Congress and the General Accounting Office

The Congressional Review Act, 5 U.S.C. 801, *et seq.*, as added by the SBREFA of 1996, provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. Therefore, we will submit a report containing this rule and other required information to the United States Senate, the United States House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This rule is not a ''major rule'' as defined by 5 U.S.C. 804(2). This rule will be effective June 29, 1999.

H. National Technology Transfer and Advancement Act

Under section 12(d) of the National Technology Transfer and Advancement Act of 1995 (the NTTAA), Pub. L. No. 104–113, § 12(d) (15 U.S.C. 272 note), we are directed to use voluntary consensus standards instead of government-unique standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. By doing so, the Act is intended to reduce the cost to the private and public sectors.

Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, etc.) that are developed or adopted by one or more voluntary consensus standards bodies. Examples of organizations generally regarded as voluntary consensus standards bodies include the American Society for Testing and Materials (ASTM), International Organization for Standardization (IOS), International Electrotechnical Commission (IEC), American Petroleum Institute (API), National Fire Protection Association (NFPA), and the Society of Automotive Engineers (SAE). The NTTAA requires Federal agencies like us to provide Congress, through OMB, explanations when the we decide not to use available and applicable voluntary consensus standards.

This action does not require the use of any new technical standards. It does, however, incorporate by reference existing technical standards, including government-unique technical standards. The technical standards included in this final rule are standards that have been proposed and promulgated under other rulemakings for similar source control applicability and compliance determinations. In response to the proposed rule, we received no comments pertaining to the use of additional voluntary consensus standards in lieu of those included under other rulemakings and incorporated by reference in this final rule.

As part of a larger effort, we are undertaking a project to cross-reference existing voluntary consensus standards in testing, sampling, and analysis, with current and future EPA test methods. When completed, this project will assist us in identifying potentially applicable voluntary consensus standards that can then be evaluated for equivalency and applicability in determining compliance with future regulations.

I. Executive Order 13045

Executive Order 13045, entitled Protection of Children from Environmental Health Risks and Safety Risks (62 FR 19885, April 23, 1997), applies to any rule that we determine (1) is economically significant as defined under Executive Order 12866, and (2) the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, we must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by us.

This final rule is not subject to Executive Order 13045 because it is not an economically significant regulatory action as defined by Executive Order 12866. No children's risk analysis was performed for this rulemaking because the agency does not have the data necessary to conduct such analysis, and cannot obtain such data with available resources.

J. Executive Order 13084

Under Executive Order 13084, we may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance cost incurred by the tribal governments, or we consult with those governments. If we comply by consulting, Executive Order 13084 requires us to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of our prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires us to develop an effective process permitting elected officials and other representatives of Indian tribal governments ''to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.'' Today's rule implements requirements specifically set forth by Congress in section 112 of the Act without the exercise of any discretion by us. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

List of Subjects for 40 CFR Part 63

Environmental protection, Acetal resins production, Acrylic and modacrylic fiber production, Administrative practice and procedure, Air pollution control, Equipment leaks, Fiber spinning lines, Hazardous substances, Hydrogen fluoride production, Intergovernmental relations, Kilns, Polycarbonate production, Process vents, Reporting and recordkeeping requirements, Storage vessels, Transfer.

Dated: May 14, 1999.

Carol M. Browner,

Administrator.

For the reasons set out in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR AFFECTED SOURCE CATEGORIES

1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, et. seq.

2. Part 63 is amended by adding subpart SS, consisting of §§ 63.980 through 63.999, to read as follows.

Subpart SS—National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process

Sec.

Subpart SS—National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process

§ 63.980 Applicability.

The provisions of this subpart include requirements for closed vent systems, control devices and routing of air emissions to a fuel gas system or process. These provisions apply when another subpart references the use of this subpart for such air emission control. These air emission standards are placed here for administrative convenience and only apply to those owners and operators of facilities subject to a referencing subpart. The provisions of 40 CFR part 63, subpart A (General Provisions) do not apply to this subpart except as specified in a referencing subpart.

§ 63.981 Definitions.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a reference test or equivalent method, and that has been demonstrated to the Administrator's satisfaction, using Method 301 in appendix A of this part 63, or previously approved by the Administrator prior to the promulgation date of standards for an affected source or affected facility under a referencing subpart, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this subpart.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator or a process heater.

By compound means by individual stream components, not carbon equivalents.

Closed vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device. Closed vent system does not include the vapor collection system that is part of any tank truck or railcar.

Closed vent system shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a closed vent system or part of a closed vent system consistent with safety constraints and during which repairs can be effected. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a closed vent system shutdown. An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the closed vent system or part of the closed vent system of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled closed vent system shutdown, is not a closed vent system shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not closed vent system shutdowns.

Combustion device means an individual unit of equipment, such as a flare, incinerator, process heater, or boiler, used for the combustion of organic emissions.

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Continuous record means documentation, either in hard copy or computer readable form, of data values measured at least once every 15 minutes and recorded at the frequency specified in § 63.998(b).

Control device means, with the exceptions noted below, a combustion device, recovery device, recapture device, or any combination of these devices used to comply with this subpart or a referencing subpart. For process vents from continuous unit operations at affected sources in subcategories where the applicability criteria includes a TRE index value, recovery devices are not considered to be control devices. Primary condensers on steam strippers or fuel gas systems are not considered to be control devices.

Control System means the combination of the closed vent system and the control devices used to collect and control vapors or gases from a regulated emission source.

Day means a calendar day.

Ductwork means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

Final recovery device means the last recovery device on a process vent stream from a continuous unit operation at an affected source in a subcategory where the applicability criteria includes a TRE index value. The final recovery device usually discharges to a combustion device, recapture device, or directly to the atmosphere.

First attempt at repair, for the purposes of this subpart, means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere, followed by monitoring as specified in § 63.983(c) to verify whether the leak is repaired, unless the owner or operator determines by other means that the leak is not repaired.

Flame zone means the portion of the combustion chamber in a boiler or

process heater occupied by the flame envelope.

Flow indicator means a device which indicates whether gas flow is, or whether the valve position would allow gas flow to be, present in a line.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous streams generated by onsite operations, may blend them with other sources of gas, and transports the gaseous streams for use as fuel gas in combustion devices or in-process combustion equipment such as furnaces and gas turbines, either singly or in combination.

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgment and standards, such as ANSI B31.3.

High throughput transfer rack means those transfer racks that transfer a total of 11.8 million liters per year or greater of liquid containing regulated material.

Incinerator means an enclosed combustion device that is used for destroying organic compounds. Auxiliary fuel may be used to heat waste gas to combustion temperatures. Any energy recovery section present is not physically formed into one manufactured or assembled unit with the combustion section; rather, the energy recovery section is a separate section following the combustion section and the two are joined by ducts or connections carrying flue gas. The above energy recovery section limitation does not apply to an energy recovery section used solely to preheat the incoming vent stream or combustion air.

Low throughput transfer rack means those transfer racks that transfer less than a total of 11.8 million liters per year of liquid containing regulated material.

Operating parameter value means a minimum or maximum value established for a control device parameter which, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limit or operating limit.

Organic monitoring device means a unit of equipment used to indicate the concentration level of organic compounds based on a detection principle such as infra-red, photo ionization, or thermal conductivity.

Owner or operator means any person who owns, leases, operates, controls, or supervises a regulated source or a stationary source of which a regulated source is a part.

Performance level means the level at which the regulated material in the gases or vapors vented to a control or recovery device is removed, recovered, or destroyed. Examples of control device performance levels include: achieving a minimum organic reduction efficiency expressed as a percentage of regulated material removed or destroyed in the control device inlet stream on a weight-basis; achieving an organic concentration in the control device exhaust stream that is less than a maximum allowable limit expressed in parts per million by volume on a dry basis corrected to 3 percent oxygen if a combustion device is the control device and supplemental combustion air is used to combust the emissions; or maintaining appropriate control device operating parameters indicative of the device performance at specified values.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission limit as specified in the performance test section of this subpart or in the referencing subpart.

Primary fuel means the fuel that provides the principal heat input to a device. To be considered primary, the fuel must be able to sustain operation without the addition of other fuels.

Process heater means an enclosed combustion device that transfers heat liberated by burning fuel directly to process streams or to heat transfer liquids other than water. A process heater may, as a secondary function, heat water in unfired heat recovery sections.

Recapture device means an individual unit of equipment capable of and used for the purpose of recovering chemicals, but not normally for use, reuse, or sale. For example, a recapture device may recover chemicals primarily for disposal. Recapture devices include, but are not limited to, absorbers, carbon adsorbers, and condensers. For purposes of the monitoring, recordkeeping and reporting requirements of this subpart, recapture devices are considered recovery devices.

Recovery device means an individual unit of equipment capable of and normally used for the purpose of recovering chemicals for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value, use, or reuse. Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units. For purposes of the monitoring, recordkeeping, and reporting requirements of this subpart, recapture devices are considered recovery devices.

Referencing subpart means the subpart which refers an owner or operator to this subpart.

Regulated material, for purposes of this subpart, refers to vapors from volatile organic liquids (VOL), volatile organic compounds (VOC), or hazardous air pollutants (HAP), or other chemicals or groups of chemicals that are regulated by a referencing subpart.

Regulated source for the purposes of this subpart, means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a relevant standard or other requirement established pursuant to a referencing subpart.

Repaired, for the purposes of this subpart, means that equipment; is adjusted, or otherwise altered, to eliminate a leak as defined in the applicable sections of this subpart; and unless otherwise specified in applicable provisions of this subpart, is inspected as specified in § 63.983(c) to verify that emissions from the equipment are below the applicable leak definition.

Routed to a process or route to a process means the gas streams are conveyed to any enclosed portion of a process unit where the emissions are recycled and/or consumed in the same manner as a material that fulfills the same function in the process; and/or transformed by chemical reaction into materials that are not regulated materials; and/or incorporated into a product; and/or recovered.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this subpart. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

Secondary fuel means a fuel fired through a burner other than the primary fuel burner that provides supplementary heat in addition to the heat provided by the primary fuel.

Sensor means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

Specific gravity monitoring device means a unit of equipment used to monitor specific gravity and having a minimum accuracy of ±0.02 specific gravity units.

Temperature monitoring device means a unit of equipment used to monitor temperature and having a

minimum accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±1.2 degrees Celsius (°C), whichever is greater.

§ 63.982 Requirements.

(a) *General compliance requirements for storage vessels, process vents, transfer racks, and equipment leaks.* An owner or operator who is referred to this subpart for controlling regulated material emissions from storage vessels, process vents, low and high throughput transfer racks, or equipment leaks by venting emissions through a closed vent system to a flare, nonflare control device or routing to a fuel gas system or process shall comply with the applicable requirements of paragraphs (a)(1) through (4) of this section.

(1) *Storage vessels.* The owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(1), and (d) of this section.

(2) *Process vents.* The owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(2), and (e) of this section.

(3) *Transfer racks.* (i) For low throughput transfer racks, the owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(1), and (d) of this section.

(ii) For high throughput transfer racks, the owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(2), and (d) of this section.

(4) *Equipment leaks.* The owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(3), and (d) of this section.

(b) *Closed vent system and flare.* Owners or operators that vent emissions through a closed vent system to a flare shall meet the requirements in § 63.983 for closed vent systems; § 63.987 for flares; § 63.997 (a), (b) and (c) for provisions regarding flare compliance assessments; the monitoring, recordkeeping, and reporting requirements referenced therein; and the applicable recordkeeping and reporting requirements of §§ 63.998 and 63.999. No other provisions of this subpart apply to emissions vented through a closed vent system to a flare.

(c) *Closed vent system and nonflare control device.* Owners or operators who control emissions through a closed vent system to a nonflare control device shall meet the requirements in § 63.983 for closed vent systems, the applicable recordkeeping and reporting requirements of §§ 63.998 and 63.999, and the applicable requirements listed in paragraphs (c)(1) through (3) of this section.

(1) For storage vessels and low throughput transfer racks, the owner or operator shall meet the requirements in § 63.985 for nonflare control devices and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to low throughput transfer rack emissions or storage vessel emissions vented through a closed vent system to a nonflare control device unless specifically required in the monitoring plan submitted under § 63.985(c).

(2) For process vents and high throughput transfer racks, the owner or operator shall meet the requirements applicable to the control devices being used in § 63.988, § 63.990 or § 63.995; the applicable general monitoring requirements of § 63.996 and the applicable performance test requirements and procedures of § 63.997; and the monitoring, recordkeeping and reporting requirements referenced therein. Owners or operators subject to halogen reduction device requirements under a referencing subpart must also comply with § 63.994 and the monitoring, recordkeeping, and reporting requirements referenced therein. The requirements of § 63.984 through § 63.986 do not apply to process vents or high throughput transfer racks.

(3) For equipment leaks, owners or operators shall meet the requirements in § 63.986 for nonflare control devices used for equipment leak emissions and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to equipment leak emissions vented through a closed vent system to a nonflare control device.

(d) *Route to a fuel gas system or process.* Owners or operators that route emissions to a fuel gas system or to a process shall meet the requirements in § 63.984, the monitoring, recordkeeping, and reporting requirements referenced therein, and the applicable recordkeeping and reporting requirements of §§ 63.998 and 63.999. No other provisions of this subpart apply to emissions being routed to a fuel gas system or process.

(e) *Final recovery devices.* Owners or operators who use a final recovery device to maintain a TRE above a level specified in a referencing subpart shall meet the requirements in § 63.993 and the monitoring, recordkeeping, and reporting requirements referenced therein that are applicable to the recovery device being used; the applicable monitoring requirements in § 63.996 and the recordkeeping and reporting requirements referenced therein; and the applicable recordkeeping and reporting requirements of §§ 63.998 and 63.999. No other provisions of this subpart apply to process vent emissions routed to a final recovery device.

(f) *Combined emissions.* When emissions from different emission types (e.g., emissions from process vents, transfer racks, and/or storage vessels) are combined, an owner or operator shall comply with the requirements of either paragraph (f)(1) or (2) of this section.

(1) Comply with the applicable requirements of this subpart for each kind of emissions in the stream (e.g., the requirements of § 63.982(a)(2) for process vents, and the requirements of § 63.982(a)(3) for transfer racks); or

(2) Comply with the first set of requirements identified in paragraphs (f)(2)(i) through (iii) of this section which applies to any individual emission stream that is included in the combined stream. Compliance with paragraphs (f)(2)(i) through (iii) of this section constitutes compliance with all other emissions requirements for other emission streams.

(i) The requirements of § 63.982(a)(2) for process vents, including applicable monitoring, recordkeeping, and reporting;

(ii) The requirements of § 63.982(a)(3)(ii) for high throughput transfer racks, including applicable monitoring, recordkeeping, and reporting;

(iii) The requirements of § 63.982(a)(1) or (a)(3)(i) for control of emissions from storage vessels or low throughput transfer racks, including applicable monitoring, recordkeeping, and reporting.

§ 63.983 Closed vent systems.

(a) *Closed vent system equipment and operating requirements.* Except for closed vent systems operated and maintained under negative pressure, the provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.

(1) *Collection of emissions.* Each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device.

(2) *Period of operation.* Closed vent systems used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to, or collected by, them.

(3) *Bypass monitoring.* Except for equipment needed for safety purposes such as pressure relief devices, low leg drains, high point bleeds, analyzer vents, and open-ended valves or lines, the owner or operator shall comply with

the provisions of either paragraphs (a)(3)(i) or (ii) of this section for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere.

(i) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in § 63.998(d)(1)(ii)(A). The flow indicator shall be installed at the entrance to any bypass line.

(ii) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line. Records shall be generated as specified in § 63.998(d)(1)(ii)(B).

(4) *Loading arms at transfer racks.* Each closed vent system collecting regulated material from a transfer rack shall be designed and operated so that regulated material vapors collected at one loading arm will not pass through another loading arm in the rack to the atmosphere.

(5) *Pressure relief devices in a transfer rack's closed vent system.* The owner or operator of a transfer rack subject to the provisions of this subpart shall ensure that no pressure relief device in the transfer rack's closed vent system shall open to the atmosphere during loading. Pressure relief devices needed for safety purposes are not subject to this paragraph.

(b) *Closed vent system inspection requirements.* The provisions of this subpart apply to closed vent systems collecting regulated material from a regulated source. Inspection records shall be generated as specified in § 63.998(d)(1)(iii) and (iv) of this section.

(1) Except for any closed vent systems that are designated as unsafe or difficult to inspect as provided in paragraphs (b)(2) and (3) of this section, each closed vent system shall be inspected as specified in paragraph (b)(1)(i) or (ii) of this section.

(i) If the closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (b)(1)(i)(A) and (B) of this section.

(A) Conduct an initial inspection according to the procedures in paragraph (c) of this section; and

(B) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(ii) If the closed vent system is constructed of ductwork, the owner or operator shall conduct an initial and annual inspection according to the procedures in paragraph (c) of this section.

(2) Any parts of the closed vent system that are designated, as described in § 63.998(d)(1)(i), as unsafe to inspect are exempt from the inspection requirements of paragraph (b)(1) of this section if the conditions of paragraphs (b)(2)(i) and (ii) of this section are met.

(i) The owner or operator determines that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraph (b)(1) of this section; and

(ii) The owner or operator has a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times. Inspection is not required more than once annually.

(3) Any parts of the closed vent system that are designated, as described in § 63.998(d)(1)(i), as difficult-to-inspect are exempt from the inspection requirements of paragraph (b)(1) of this section if the provisions of paragraphs (b)(3)(i) and (ii) of this section apply.

(i) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface; and

(ii) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years.

(c) *Closed vent system inspection procedures.* The provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.

(1) Each closed vent system subject to this paragraph shall be inspected according to the procedures specified in paragraphs (c)(1)(i) through (vii) of this section.

(i) Inspections shall be conducted in accordance with Method 21 of 40 CFR part 60, appendix A, except as specified in this section.

(ii) Except as provided in (c)(1)(iii) of this section, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 must be for the representative composition of the process fluid and not of each individual VOC in the stream. For process streams that contain nitrogen, air, water, or other inerts that are not organic HAP or VOC, the representative stream response factor must be determined on an inert-free basis. The response factor may be determined at any concentration for which the monitoring for leaks will be conducted.

(iii) If no instrument is available at the plant site that will meet the performance criteria of Method 21 specified in paragraph (c)(1)(ii) of this section, the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid, calculated on an inert-free basis as described in paragraph (c)(1)(ii) of this section.

(iv) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(v) Calibration gases shall be as specified in paragraphs (c)(1)(v)(A) through (C) of this section.

(A) Zero air (less than 10 parts per million hydrocarbon in air); and

(B) Mixtures of methane in air at a concentration less than 10,000 parts per million. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph (c)(1)(ii) of this section. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

(C) If the detection instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,500 parts per million.

(vi) An owner or operator may elect to adjust or not adjust instrument readings for background. If an owner or operator elects not to adjust readings for background, all such instrument readings shall be compared directly to 500 parts per million to determine whether there is a leak. If an owner or operator elects to adjust instrument readings for background, the owner or operator shall measure background concentration using the procedures in this section. The owner or operator shall subtract the background reading from the maximum concentration indicated by the instrument.

(vii) If the owner or operator elects to adjust for background, the arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared with 500 parts per million for determining whether there is a leak.

(2) The instrument probe shall be traversed around all potential leak interfaces as described in Method 21 of 40 CFR part 60, appendix A.

(3) Except as provided in paragraph (c)(4) of this section, inspections shall

be performed when the equipment is in regulated material service, or in use with any other detectable gas or vapor.

(4) Inspections of the closed vent system collecting regulated material from a transfer rack shall be performed only while a tank truck or railcar is being loaded or is otherwise pressurized to normal operating conditions with regulated material or any other detectable gas or vapor.

(d) *Closed vent system leak repair provisions.* The provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.

(1) If there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections required by paragraph (b)(1)(i)(B) of this section, the owner or operator shall follow the procedure specified in either paragraph (d)(1)(i) or (ii) of this section.

(i) The owner or operator shall eliminate the leak.

(ii) The owner or operator shall monitor the equipment according to the procedures in paragraph (c) of this section.

(2) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practical, except as provided in paragraph (d)(3) of this section. Records shall be generated as specified in § 63.998(d)(1)(iii) when a leak is detected.

(i) A first attempt at repair shall be made no later than 5 days after the leak is detected.

(ii) Except as provided in paragraph (d)(3) of this section, repairs shall be completed no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later.

(3) Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe without a closed vent system shutdown, as defined in § 63.981, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed as soon as practical, but not later than the end of the next closed vent system shutdown.

§ 63.984 Fuel gas systems and processes to which storage vessel, transfer rack, or equipment leak regulated material emissions are routed.

(a) *Equipment and operating requirements for fuel gas systems and processes.* (1) Except during periods of start-up, shutdown and malfunction as specified in the referencing subpart, the fuel gas system or process shall be operating at all times when regulated material emissions are routed to it.

(2) The owner or operator of a transfer rack subject to the provisions of this subpart shall ensure that no pressure relief device in the transfer rack's system returning vapors to a fuel gas system or process shall open to the atmosphere during loading. Pressure relief devices needed for safety purposes are not subject to this paragraph.

(b) *Fuel gas system and process compliance assessment.* (1) If emissions are routed to a fuel gas system, there is no requirement to conduct a performance test or design evaluation.

(2) If emissions are routed to a process, the regulated material in the emissions shall meet one or more of the conditions specified in paragraphs (b)(2)(i) through (iv) of this section. The owner or operator of storage vessels subject to this paragraph shall comply with the compliance demonstration requirements in paragraph (b)(3) of this section.

(i) Recycled and/or consumed in the same manner as a material that fulfills the same function in that process;

(ii) Transformed by chemical reaction into materials that are not regulated materials;

(iii) Incorporated into a product; and/or

(iv) Recovered.

(3) To demonstrate compliance with paragraph (b)(2) of this section for a storage vessel, the owner or operator shall prepare a design evaluation (or engineering assessment) that demonstrates the extent to which one or more of the conditions specified in paragraphs (b)(2)(i) through (iv) of this section are being met.

(c) *Statement of connection.* For storage vessels and transfer racks, the owner or operator shall submit the statement of connection reports for fuel gas systems specified in § 63.999(b)(1)(ii), as appropriate.

§ 63.985 Nonflare control devices used to control emissions from storage vessels and low throughput transfer racks.

(a) *Nonflare control device equipment and operating requirements.* The owner or operator shall operate and maintain the nonflare control device so that the monitored parameters defined as required in paragraph (c) of this section remain within the ranges specified in the Notification of Compliance Status whenever emissions of regulated material are routed to the control device except during periods of start-up, shutdown, and malfunction as specified in the referencing subpart.

(b) *Nonflare control device design evaluation or performance test requirements.* When using a control device other than a flare, the owner or operator shall comply with the requirements in paragraphs (b)(1)(i) or (ii) of this section, except as provided in paragraphs (b)(2) and (3) of this section.

(1) *Design evaluation or performance test results.* The owner or operator shall prepare and submit with the Notification of Compliance Status, as specified in § 63.999(b)(2), either a design evaluation that includes the information specified in paragraph (b)(1)(i) of this section, or the results of the performance test as described in paragraph (b)(1)(ii) of this section.

(i) *Design evaluation.* The design evaluation shall include documentation demonstrating that the control device being used achieves the required control efficiency during the reasonably expected maximum storage vessel filling or transfer loading rate. This documentation is to include a description of the gas stream that enters the control device, including flow and regulated material content, and the information specified in paragraphs (b)(1)(i)(A) through (E) of this section, as applicable. For storage vessels, the description of the gas stream that enters the control device shall be provided for varying liquid level conditions. This documentation shall be submitted with the Notification of Compliance Status as specified in § 63.999(b)(2).

(A) The efficiency determination is to include consideration of all vapors, gases, and liquids, other than fuels, received by the control device.

(B) If an enclosed combustion device with a minimum residence time of 0.5 seconds and a minimum temperature of 760 °C is used to meet an emission reduction requirement specified in a referencing subpart for storage vessels and transfer racks, documentation that those conditions exist is sufficient to meet the requirements of paragraph (b)(1)(i) of this section.

(C) Except as provided in paragraph (b)(1)(i)(B) of this section for enclosed combustion devices, the design evaluation shall include the estimated autoignition temperature of the stream being combusted, the flow rate of the stream, the combustion temperature, and the residence time at the combustion temperature.

(D) For carbon adsorbers, the design evaluation shall include the estimated affinity of the regulated material vapors for carbon, the amount of carbon in each bed, the number of beds, the humidity, the temperature, the flow rate of the

inlet stream and, if applicable, the desorption schedule, the regeneration stream pressure or temperature, and the flow rate of the regeneration stream. For vacuum desorption, pressure drop shall be included.

(E) For condensers, the design evaluation shall include the final temperature of the stream vapors, the type of condenser, and the design flow rate of the emission stream.

(ii) *Performance test.* A performance test, whether conducted to meet the requirements of this section, or to demonstrate compliance for a process vent or high throughput transfer rack as required by §§ 63.988(b), 63.990(b), or 63.995(b), is acceptable to demonstrate compliance with emission reduction requirements for storage vessels and transfer racks. The owner or operator is not required to prepare a design evaluation for the control device as described in paragraph (b)(1)(i) of this section if a performance test will be performed that meets the criteria specified in paragraphs (b)(1)(ii)(A) and (B) of this section.

(A) The performance test will demonstrate that the control device achieves greater than or equal to the required control device performance level specified in a referencing subpart for storage vessels or transfer racks; and

(B) The performance test meets the applicable performance test requirements and the results are submitted as part of the Notification of Compliance Status as specified in § 63.999(b)(2).

(2) *Exceptions.* A design evaluation or performance test is not required if the owner or operator uses a combustion device meeting the criteria in paragraph (b)(2)(i), (ii), (iii), or (iv) of this section.

(i) A boiler or process heater with a design heat input capacity of 44 megawatts (150 million British thermal units per hour) or greater.

(ii) A boiler or process heater burning hazardous waste for which the owner or operator meets the requirements specified in paragraph (b)(2)(ii)(A) or (B) of this section.

(A) The boiler or process heater has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H, or

(B) The boiler or process heater has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

(iii) A hazardous waste incinerator for which the owner or operator meets the requirements specified in paragraph (b)(2)(iii)(A) or (B) of this section.

(A) The incinerator has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 264, subpart O; or

(B) The incinerator has certified compliance with the interim status requirements of 40 CFR part 265, subpart O; or

(iv) A boiler or process heater into which the vent stream is introduced with the primary fuel.

(3) *Prior design evaluations or performance tests.* If a design evaluation or performance test is required in the referencing subpart or was previously conducted and submitted for a storage vessel or low throughput transfer rack, then a performance test or design evaluation is not required.

(c) *Nonflare control device monitoring requirements.* (1) The owner or operator shall submit with the Notification of Compliance Status, a monitoring plan containing the information specified in § 63.999(b)(2)(i) and (ii) to identify the parameters that will be monitored to assure proper operation of the control device.

(2) The owner or operator shall monitor the parameters specified in the Notification of Compliance Status or in the operating permit application or amendment. Records shall be generated as specified in § 63.998(d)(2)(i).

§ 63.986 Nonflare control devices used for equipment leaks only.

(a) *Equipment and operating requirements.* (1) Owners or operators using a nonflare control device to meet the applicable requirements of a referencing subpart for equipment leaks shall meet the requirements of this section.

(2) Control devices used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to them.

(b) *Performance test requirements.* A performance test is not required for any nonflare control device used only to control emissions from equipment leaks.

(c) *Monitoring requirements.* Owners or operators of control devices that are used to comply only with the provisions of a referencing subpart for control of equipment leak emissions shall monitor these control devices to ensure that they are operated and maintained in conformance with their design. The owner or operator shall maintain the records as specified in § 63.998(d)(4).

§ 63.987 Flare requirements.

(a) *Flare equipment and operating requirements.* Flares subject to this subpart shall meet the performance requirements in 40 CFR 63.11(b) (General Provisions).

(b) *Flare compliance assessment.* (1) The owner or operator shall conduct an initial flare compliance assessment of any flare used to comply with the provisions of this subpart. Flare compliance assessment records shall be kept as specified in § 63.998(a)(1) and a flare compliance assessment report shall be submitted as specified in § 63.999(a)(2). An owner or operator is not required to conduct a performance test to determine percent emission reduction or outlet regulated material or total organic compound concentration when a flare is used.

(2) [Reserved]

(3) Flare compliance assessments shall meet the requirements specified in paragraphs (b)(3)(i) through (iv) of this section.

(i) Method 22 of appendix A of part 60 shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours, except for transfer racks as provided in (b)(3)(i)(A) or (B) of this section.

(A) For transfer racks, if the loading cycle is less than 2 hours, then the observation period for that run shall be for the entire loading cycle.

(B) For transfer racks, if additional loading cycles are initiated within the 2-hour period, then visible emissions observations shall be conducted for the additional cycles.

(ii) The net heating value of the gas being combusted in a flare shall be calculated using Equation 1:

$$H_T = K_1 \sum_{j=1}^{n} D_j H_j \qquad \text{[Eq. 1]}$$

Where:

H_T = Net heating value of the sample, megajoules per standard cubic meter; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 millimeters of mercury (30 inches of mercury), but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$K_1 = 1.740 \times 10^{-7}$ (parts per million by volume)$^{-1}$ (gram-mole per standard cubic meter) (megajoules per kilocalories), where the standard temperature for gram mole per standard cubic meter is 20 °C;

n = number of sample components;

D_j = Concentration of sample component j, in parts per million by volume on a wet basis, as measured for organics by Method 18 of part 60, appendix A and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946–90; and

H_j = Net heat of combustion of sample component j, kilocalories per gram

mole at 25 °C and 760 millimeters of mercury (30 inches of mercury).

(iii) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Methods 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(iv) Flare flame or pilot monitors, as applicable, shall be operated during any flare compliance assessment.

(c) *Flare monitoring requirements.* Where a flare is used, the following monitoring equipment is required: a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting that at least one pilot flame or the flare flame is present. Flare flame monitoring and compliance records shall be kept as specified in § 63.998(a)(1) and reported as specified in § 63.999(c)(8).

§ 63.988 Incinerators, boilers, and process heaters.

(a) *Equipment and operating requirements.* (1) Owners or operators using incinerators, boilers, or process heaters to meet a weight-percent emission reduction or parts per million by volume outlet concentration requirement specified in a referencing subpart shall meet the requirements of this section.

(2) Incinerators, boilers, or process heaters used to comply with the provisions of a referencing subpart and this subpart shall be operated at all times when emissions are vented to them.

(3) For boilers and process heaters, the vent stream shall be introduced into the flame zone of the boiler or process heater.

(b) *Performance test requirements.* (1) Except as specified in § 63.997(b), and paragraph (b)(2) of this section, the owner or operator shall conduct an initial performance test of any incinerator, boiler, or process heater used to comply with the provisions of a referencing subpart and this subpart according to the procedures in § 63.997. Performance test records shall be kept as specified in § 63.998(a)(2) and a performance test report shall be submitted as specified in § 63.999(a)(2). As provided in § 63.985(b)(1), a design evaluation may be used as an alternative to the performance test for storage vessels and low throughput transfer rack controls. As provided in § 63.986(b), no performance test is required for equipment leaks.

(2) An owner or operator is not required to conduct a performance test when any of the control devices specified in paragraphs (b)(2)(i) through (iv) of this section are used.

(i) A hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 264, subpart O, or has certified compliance with the interim status requirements of 40 CFR part 265, subpart O;

(ii) A boiler or process heater with a design heat input capacity of 44 megawatts (150 million British thermal units per hour) or greater;

(iii) A boiler or process heater into which the vent stream is introduced with the primary fuel or is used as the primary fuel; or

(iv) A boiler or process heater burning hazardous waste for which the owner or operator meets the requirements specified in paragraph (b)(2)(iv)(A) or (B) of this section.

(A) The boiler or process heater has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H; or

(B) The boiler or process heater has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

(c) *Incinerator, boiler, and process heater monitoring requirements.* Where an incinerator, boiler, or process heater is used, a temperature monitoring device capable of providing a continuous record that meets the provisions specified in paragraph (c)(1), (2), or (3) of this section is required. Any boiler or process heater in which all vent streams are introduced with primary fuel or are used as the primary fuel is exempt from monitoring. Monitoring results shall be recorded as specified in § 63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in the referencing subpart and § 63.996.

(1) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs.

(2) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(3) Where a boiler or process heater of less than 44 megawatts (150 million British thermal units per hour) design heat input capacity is used and the regulated vent stream is not introduced as or with the primary fuel, a temperature monitoring device shall be installed in the fire box.

§ 63.989 [Reserved]

§ 63.990 Absorbers, condensers, and carbon adsorbers used as control devices.

(a) *Equipment and operating requirements.* (1) Owners or operators using absorbers, condensers, or carbon adsorbers to meet a weight-percent emission reduction or parts per million by volume outlet concentration requirement specified in a referencing subpart shall meet the requirements of this section.

(2) Absorbers, condensers, and carbon adsorbers used to comply with the provisions of a referencing subpart and this subpart shall be operated at all times when emissions are vented to them.

(b) *Performance test requirements.* Except as specified in § 63.997(b), the owner or operator shall conduct an initial performance test of any absorber, condenser, or carbon adsorber used as a control device to comply with the provisions of the referencing subpart and this subpart according to the procedures in § 63.997. Performance test records shall be kept as specified in § 63.998(a)(2) and a performance test report shall be submitted as specified in § 63.999(a)(2). As provided in § 63.985(b)(1), a design evaluation may be used as an alternative to the performance test for storage vessels and low throughput transfer rack controls. As provided in § 63.986(b), no performance test is required to demonstrate compliance for equipment leaks.

(c) *Monitoring requirements.* Where an absorber, condenser, or carbon adsorber is used as a control device, either an organic monitoring device capable of providing a continuous record, or the monitoring devices specified in paragraphs (c)(1) through (3), as applicable, shall be used. Monitoring results shall be recorded as specified in § 63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in a referencing subpart and § 63.996.

(1) Where an absorber is used, a scrubbing liquid temperature monitoring device and a specific gravity monitoring device, each capable of providing a continuous record, shall be used. If the difference between the specific gravity of the saturated scrubbing fluid and specific gravity of the fresh scrubbing fluid is less than 0.02 specific gravity units, an organic monitoring device capable of providing a continuous record shall be used.

(2) Where a condenser is used, a condenser exit (product side) temperature monitoring device capable of providing a continuous record shall be used.

(3) Where a carbon adsorber is used, an integrating regeneration stream flow monitoring device having an accuracy of ±10 percent or better, capable of recording the total regeneration stream mass or volumetric flow for each regeneration cycle; and a carbon bed temperature monitoring device, capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle, shall be used.

§ 63.991 [Reserved]

§ 63.992 [Reserved]

§ 63.993 Absorbers, condensers, carbon adsorbers and other recovery devices used as final recovery devices.

(a) *Final recovery device equipment and operating requirements.* (1) Owners or operators using a final recovery device to maintain a TRE above a level specified in a referencing subpart shall meet the requirements of this section.

(2) Recovery devices used to comply with the provisions of a referencing subpart and this subpart shall be operated at all times when emissions are vented to them.

(b) *Recovery device performance test requirements.* There are no performance test requirements for recovery devices. TRE index value determination information shall be recorded as specified in § 63.998(a)(3).

(c) *Recovery device monitoring requirements.* (1) Where an absorber is the final recovery device in the recovery system and the TRE index value is between the level specified in a referencing subpart and 4.0, either an organic monitoring device capable of providing a continuous record or a scrubbing liquid temperature monitoring device and a specific gravity monitoring device, each capable of providing a continuous record, shall be used. If the difference between the specific gravity of the saturated scrubbing fluid and specific gravity of the fresh scrubbing fluid is less than 0.02 specific gravity units, an organic monitoring device capable of providing a continuous record shall be used. Monitoring results shall be recorded as specified in § 63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in § 63.996.

(2) Where a condenser is the final recovery device in the recovery system and the TRE index value is between the level specified in a referencing subpart and 4.0, an organic monitoring device capable of providing a continuous record or a condenser exit (product side) temperature monitoring device capable of providing a continuous record shall be used. Monitoring results shall be recorded as specified in § 63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in a referencing subpart and § 63.996.

(3) Where a carbon adsorber is the final recovery device in the recovery system and the TRE index value is between the level specified in a referencing subpart and 4.0, an organic monitoring device capable of providing a continuous record or an integrating regeneration stream flow monitoring device having an accuracy of ±10 percent or better, capable of recording the total regeneration stream mass or volumetric flow for each regeneration cycle; and a carbon-bed temperature monitoring device, capable of recording the carbon-bed temperature after each regeneration and within 15 minutes of completing any cooling cycle shall be used. Monitoring results shall be recorded as specified in § 63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in a referencing subpart and § 63.996.

(4) If an owner or operator uses a recovery device other than those listed in this subpart, the owner or operator shall submit a description of planned monitoring, reporting and recordkeeping procedures as specified in a referencing subpart. The Administrator will approve, deny, or modify based on the reasonableness of the proposed monitoring, reporting and recordkeeping requirements as part of the review of the submission or permit application or by other appropriate means.

§ 63.994 Halogen scrubbers and other halogen reduction devices.

(a) *Halogen scrubber and other halogen reduction device equipment and operating requirements.* (1) An owner or operator of a halogen scrubber or other halogen reduction device subject to this subpart shall reduce the overall emissions of hydrogen halides and halogens by the control device performance level specified in a referencing subpart.

(2) Halogen scrubbers and other halogen reduction devices used to comply with the provisions of a referencing subpart and this subpart shall be operated at all times when emissions are vented to them.

(b) *Halogen scrubber and other halogen reduction device performance test requirements.* (1) An owner or operator of a combustion device followed by a halogen scrubber or other halogen reduction device to control halogenated vent streams in accordance with a referencing subpart and this subpart shall conduct an initial performance test to determine compliance with the control efficiency or emission limits for hydrogen halides and halogens according to the procedures in § 63.997. Performance test records shall be kept as specified in § 63.998(a)(2) and a performance test report shall be submitted as specified in § 63.999(a)(2).

(2) An owner or operator of a halogen scrubber or other halogen reduction technique used to reduce the vent stream halogen atom mass emission rate prior to a combustion device to comply with a performance level specified in a referencing subpart shall determine the halogen atom mass emission rate prior to the combustion device according to the procedures specified in the referencing subpart. Records of the halogen concentration in the vent stream shall be generated as specified in § 63.998(a)(4).

(c) *Halogen scrubber and other halogen reduction device monitoring requirements.* (1) Where a halogen scrubber is used, the monitoring equipment specified in paragraphs (c)(1)(i) and (ii) of this section is required for the scrubber. Monitoring results shall be recorded as specified in § 63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in a referencing subpart and § 63.996.

(i) A pH monitoring device capable of providing a continuous record shall be installed to monitor the pH of the scrubber effluent.

(ii) A flow meter capable of providing a continuous record shall be located at the scrubber influent for liquid flow. Gas stream flow shall be determined using one of the procedures specified in paragraphs (c)(1)(ii)(A) through (D) of this section.

(A) The owner or operator may determine gas stream flow using the design blower capacity, with appropriate adjustments for pressure drop.

(B) The owner or operator may measure the gas stream flow at the scrubber inlet.

(C) If the scrubber is subject to regulations in 40 CFR parts 264 through 266 that have required a determination

of the liquid to gas (L/G) ratio prior to the applicable compliance date for the process unit of which it is part as specified in a referencing subpart, the owner or operator may determine gas stream flow by the method that had been utilized to comply with those regulations. A determination that was conducted prior to that compliance date may be utilized to comply with this subpart if it is still representative.

(D) The owner or operator may prepare and implement a gas stream flow determination plan that documents an appropriate method that will be used to determine the gas stream flow. The plan shall require determination of gas stream flow by a method that will at least provide a value for either a representative or the highest gas stream flow anticipated in the scrubber during representative operating conditions other than start-ups, shutdowns, or malfunctions. The plan shall include a description of the methodology to be followed and an explanation of how the selected methodology will reliably determine the gas stream flow, and a description of the records that will be maintained to document the determination of gas stream flow. The owner or operator shall maintain the plan as specified in a referencing subpart.

(2) Where a halogen reduction device other than a scrubber is used, the owner or operator shall follow the procedures specified in a referencing subpart in order to establish monitoring parameters.

§ 63.995 Other control devices.

(a) *Other control device equipment and operating requirements.* (1) Owners or operators using a control device other than one listed in §§ 63.985 through 63.990 to meet a weight-percent emission reduction or parts per million by volume outlet concentration requirement specified in a referencing subpart shall meet the requirements of this section.

(2) Other control devices used to comply with the provisions of a referencing subpart and this subpart shall be operated at all times when emissions are vented to them.

(b) *Other control device performance test requirements.* An owner or operator using a control device other than those specified in §§ 63.987 through 63.990 to comply with a performance level specified in a referencing subpart, shall perform an initial performance test according to the procedures in § 63.997. Performance test records shall be kept as specified in § 63.998(a)(2) and a performance test report shall be submitted as specified in § 63.999(a)(2).

(c) *Other control device monitoring requirements.* If an owner or operator uses a control device other than those listed in this subpart, the owner or operator shall submit a description of planned monitoring, recordkeeping and reporting procedures as specified in a referencing subpart. The Administrator will approve, deny, or modify based on the reasonableness of the proposed monitoring, reporting and recordkeeping requirements as part of the review of the submission or permit application or by other appropriate means.

§ 63.996 General monitoring requirements for control and recovery devices.

(a) *General monitoring requirements applicability.* (1) This section applies to the owner or operator of a regulated source required to monitor under this subpart.

(2) Flares subject to § 63.987(c) are not subject to the requirements of this section.

(3) Flow indicators are not subject to the requirements of this section.

(b) *Conduct of monitoring.* (1) Monitoring shall be conducted as set forth in this section and in the relevant sections of this subpart unless the provision in either paragraph (b)(1)(i) or (ii) of this section applies.

(i) The Administrator specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures; or

(ii) The Administrator approves the use of alternatives to any monitoring requirements or procedures as provided in the referencing subpart or paragraph (d) of this section.

(2) When one CPMS is used as a backup to another CPMS, the owner or operator shall report the results from the CPMS used to meet the monitoring requirements of this subpart. If both such CPMS's are used during a particular reporting period to meet the monitoring requirements of this subpart, then the owner or operator shall report the results from each CPMS for the time during the six month period that the instrument was relied upon to demonstrate compliance.

(c) *Operation and maintenance of continuous parameter monitoring systems.* (1) All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(2) The owner or operator of a regulated source shall maintain and operate each CPMS as specified in this section, or in a relevant subpart, and in a manner consistent with good air pollution control practices.

(i) The owner or operator of a regulated source shall ensure the immediate repair or replacement of CPMS parts to correct ''routine'' or otherwise predictable CPMS malfunctions. The necessary parts for routine repairs of the affected equipment shall be readily available.

(ii) If under the referencing subpart, an owner or operator has developed a start-up, shutdown, and malfunction plan, the plan is followed, and the CPMS is repaired immediately, this action shall be recorded as specified in § 63.998(c)(1)(ii)(E).

(iii) The Administrator's determination of whether acceptable operation and maintenance procedures are being used for the CPMS will be based on information that may include, but is not limited to, review of operation and maintenance procedures, operation and maintenance records as specified in § 63.998(c)(1)(i) and (ii), manufacturer's recommendations and specifications, and inspection of the CPMS.

(3) All CPMS's shall be installed and operational, and the data verified as specified in this subpart either prior to or in conjunction with conducting performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(4) All CPMS's shall be installed such that representative measurements of parameters from the regulated source are obtained.

(5) In accordance with the referencing subpart, except for system breakdowns, repairs, maintenance periods, instrument adjustments, or checks to maintain precision and accuracy, calibration checks, and zero and span adjustments, all continuous parameter monitoring systems shall be in continuous operation when emissions are being routed to the monitored device.

(6) The owner or operator shall establish a range for monitored parameters that indicates proper operation of the control or recovery device. In order to establish the range, the information required in § 63.999(b)(3) shall be submitted in the Notification of Compliance Status or the operating permit application or amendment. The range may be based

upon a prior performance test meeting the specifications of § 63.997(b)(1) or a prior TRE index value determination, as applicable, or upon existing ranges or limits established under a referencing subpart. Where the regeneration stream flow and carbon bed temperature are monitored, the range shall be in terms of the total regeneration stream flow per regeneration cycle and the temperature of the carbon bed determined within 15 minutes of the completion of the regeneration cooling cycle.

(d) *Alternatives to monitoring requirements.* (1) *Alternatives to the continuous operating parameter monitoring and recordkeeping provisions.* An owner or operator may request approval to use alternatives to the continuous operating parameter monitoring and recordkeeping provisions listed in §§ 63.988(c), 63.990(c), 63.993(c), 63.994(c), 63.998(a)(2) through (4), 63.998(c)(2) and (3), as specified in § 63.999(d)(1).

(2) *Monitoring a different parameter than those listed.* An owner or operator may request approval to monitor a different parameter than those established in paragraph (c)(6) of this section or to set unique monitoring parameters if directed by §§ 63.994(c)(2) or 63.995(c), as specified in § 63.999(d)(2).

§ 63.997 Performance test and compliance assessment requirements for control devices.

(a) *Performance tests and flare compliance assessments.* Where §§ 63.985 through 63.995 require, or the owner or operator elects to conduct, a performance test of a control device or a halogen reduction device, or a compliance assessment for a flare, the requirements of paragraphs (b) through (d) of this section apply.

(b) *Prior test results and waivers.* Initial performance tests and initial flare compliance assessments are required only as specified in this subpart or a referencing subpart.

(1) Unless requested by the Administrator, an owner or operator is not required to conduct a performance test or flare compliance assessment under this subpart if a prior performance test or compliance assessment was conducted using the same methods specified in § 63.997(e) or § 63.987(b)(3), as applicable, and either no process changes have been made since the test, or the owner or operator can demonstrate that the results of the performance test or compliance demonstration, with or without adjustments, reliably demonstrate compliance despite process changes. An owner or operator may request permission to substitute a prior performance test or compliance assessment by written application to the Administrator as specified in § 63.999(a)(1)(iv).

(2) Individual performance tests and flare compliance assessments may be waived upon written application to the Administrator, per § 63.999(a)(1)(iii), if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, the source is being operated under an extension or waiver of compliance, or the owner or operator has requested an extension or waiver of compliance and the Administrator is still considering that request.

(3) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notification is given to the owner or operator of the source.

(c) *Performance tests and flare compliance assessments schedule.* (1) Unless a waiver of performance testing or flare compliance assessment is obtained under this section or the conditions of a referencing subpart, the owner or operator shall perform such tests as specified in paragraphs (c)(1)(i) through (vii) of this section.

(i) Within 180 days after the effective date of a relevant standard for a new source that has an initial start-up date before the effective date of that standard; or

(ii) Within 180 days after initial start-up for a new source that has an initial start-up date after the effective date of a relevant standard; or

(iii) Within 180 days after the compliance date specified in a referencing subpart for an existing source, or within 180 days after start-up of an existing source if the source begins operation after the effective date of the relevant emission standard; or

(iv) Within 180 days after the compliance date for an existing source subject to an emission standard established pursuant to section 112(f) of the Act; or

(v) Within 180 days after the termination date of the source's extension of compliance or a waiver of compliance for an existing source that obtains an extension of compliance under § 63.1112(a), or waiver of compliance under 40 CFR 61.11; or

(vi) Within 180 days after the compliance date for a new source, subject to an emission standard established pursuant to section 112(f) of the Act, for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of the relevant standard established pursuant to section 112(f); or

(vii) When the promulgated emission standard in a referencing subpart is more stringent than the standard that was proposed, the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after start-up of the source, whichever is later. If a promulgated standard in a referencing subpart is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance initially with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after start-up of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(2) The Administrator may require an owner or operator to conduct performance tests and compliance assessments at the regulated source at any time when the action is authorized by section 114 of the Act.

(3) Unless already permitted by the applicable title V permit, if an owner or operator elects to use a recovery device to replace an existing control device at a later date, or elects to use a different flare, nonflare control device or recovery device to replace an existing flare, nonflare control device or final recovery device at a later date, the owner or operator shall notify the Administrator, either by amendment of the regulated source's title V permit or, if title V is not applicable, by submission of the notice specified in § 63.999(c)(7) before implementing the change. Upon implementing the change, a compliance demonstration or performance test shall be performed according to the provisions of paragraphs (c)(3)(i) through (v) of this section, as applicable, within 180 days. The compliance assessment report shall be submitted to the Administrator within 60 days of completing the determination, as provided in § 63.999(a)(1)(ii).

(i) For flares used to replace an existing control device, a flare compliance demonstration shall be

performed using the methods specified in § 63.987(b);

(ii) For flares used to replace an existing final recovery device that is used on an applicable process vent, the owner or operator shall comply with the applicable provisions in a referencing subpart and in this subpart;

(iii) For incinerators, boilers, or process heaters used to replace an existing control device, a performance test shall be performed, using the methods specified in § 63.997;

(iv) For absorbers, condensers, or carbon adsorbers used to replace an existing control device on a process vent or a transfer rack, a performance test shall be performed, using the methods specified in § 63.997;

(v) For absorbers, condensers, or carbon adsorbers used to replace an existing final recovery device on a process vent, the owner or operator shall comply with the applicable provisions of a referencing subpart and this subpart;

(d) *Performance testing facilities.* If required to do performance testing, the owner or operator of each new regulated source and, at the request of the Administrator, the owner or operator of each existing regulated source, shall provide performance testing facilities as specified in paragraphs (d)(1) through (5) of this section.

(1) Sampling ports adequate for test methods applicable to such source. This includes, as applicable, the requirements specified in (d)(1)(i) and (ii) of this section.

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) *Performance test procedures.* Where §§ 63.985 through 63.995 require the owner or operator to conduct a performance test of a control device or a halogen reduction device, the owner or operator shall follow the requirements of paragraphs (e)(1)(i) through (v) of this section, as applicable.

(1) *General procedures.* (i) *Continuous unit operations.* For continuous unit operations, performance tests shall be conducted at maximum representative operating conditions for the process, unless the Administrator specifies or approves alternate operating conditions. During the performance test, an owner or operator may operate the control or halogen reduction device at maximum or minimum representative operating conditions for monitored control or halogen reduction device parameters, whichever results in lower emission reduction. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(ii) [Reserved]

(iii) *Combination of both continuous and batch unit operations.* For a combination of both continuous and batch unit operations, performance tests shall be conducted at maximum representative operating conditions. For the purpose of conducting a performance test on a combined vent stream, maximum representative operating conditions shall be when batch emission episodes are occurring that result in the highest organic HAP emission rate (for the combined vent stream) that is achievable during the 6-month period that begins 3 months before and ends 3 months after the compliance assessment (e.g. TRE calculation, performance test) without causing any of the situations described in paragraphs (e)(1)(iii)(A) through (C) of this section.

(A) Causing damage to equipment;

(B) Necessitating that the owner or operator make product that does not meet an existing specification for sale to a customer; or

(C) Necessitating that the owner or operator make product in excess of demand.

(iv) *Alternatives to performance test requirements.* Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this subpart, in each relevant standard, and, if required, in applicable appendices of 40 CFR parts 51, 60, 61, and 63 unless the Administrator specifies one of the provisions in paragraphs (e)(1)(iv)(A) through (E) of this section.

(A) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology; or

(B) Approves the use of an alternative test method, the results of which the Administrator has determined to be adequate for indicating whether a specific regulated source is in compliance. The alternate method or data shall be validated using the applicable procedures of Method 301 of appendix A of 40 CFR part 63; or

(C) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors; or

(D) Waives the requirement for the performance test as specified in paragraph (b)(2) of this section because the owner or operator of a regulated source has demonstrated by other means to the Administrator's satisfaction that the regulated source is in compliance with the relevant standard; or

(E) Approves the use of an equivalent method.

(v) *Performance test runs.* Except as provided in paragraphs (e)(1)(v)(A) and (B) of this section, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for at least 1 hour and under the conditions specified in this section. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(A) For control devices used to control emissions from transfer racks (except low throughput transfer racks that are capable of continuous vapor processing but do not handle continuous emissions or multiple loading arms of a transfer rack that load simultaneously), each run shall represent at least one complete tank truck or tank car loading period, during which regulated materials are loaded, and samples shall be collected using integrated sampling or grab samples taken at least four times per hour at approximately equal intervals of time, such as 15-minute intervals.

(B) For intermittent vapor processing systems used for controlling transfer rack emissions (except low throughput transfer racks that do not handle continuous emissions or multiple loading arms of a transfer rack that load simultaneously), each run shall represent at least one complete control device cycle, and samples shall be collected using integrated sampling or grab samples taken at least four times per hour at approximately equal intervals of time, such as 15-minute intervals.

(2) *Specific procedures.* Where §§ 63.985 through 63.995 require the

owner or operator to conduct a performance test of a control device, or a halogen reduction device, an owner or operator shall conduct that performance test using the procedures in paragraphs (e)(2)(i) through (iv) of this section, as applicable. The regulated material concentration and percent reduction may be measured as either total organic regulated material or as TOC minus methane and ethane according to the procedures specified.

(i) *Selection of sampling sites.* Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling sites.

(A) For determination of compliance with a percent reduction requirement of total organic regulated material or TOC, sampling sites shall be located as specified in paragraphs (e)(2)(i)(A)(*1*) and (e)(2)(i)(A)(*2*) of this section, and at the outlet of the control device.

(*1*) With the exceptions noted below in paragraphs (e)(2)(i)(A)(*2*) and (*3*), the control device inlet sampling site shall be located at the exit from the unit operation before any control device.

(*2*) For process vents from continuous unit operations at affected sources in subcategories where the applicability criteria includes a TRE index value, the control device inlet sampling site shall be located after the final recovery device.

(*3*) If a vent stream is introduced with the combustion air or as a secondary fuel into a boiler or process heater with a design capacity less than 44 megawatts, selection of the location of the inlet sampling sites shall ensure the measurement of total organic regulated material or TOC (minus methane and ethane) concentrations, as applicable, in all vent streams and primary and secondary fuels introduced into the boiler or process heater.

(B) For determination of compliance with a parts per million by volume total regulated material or TOC limit in a referencing subpart, the sampling site shall be located at the outlet of the control device.

(ii) *Gas volumetric flow rate.* The gas volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate.

(iii) *Total organic regulated material or TOC concentration.* To determine compliance with a parts per million by volume total organic regulated material or TOC (minus methane and ethane) limit, the owner or operator shall use Method 18 of 40 CFR part 60, appendix A, to measure either TOC minus methane and ethane or total organic regulated material, as applicable. Alternatively, any other method or data that have been validated according to the applicable procedures in Method 301 of appendix A of 40 CFR part 63, may be used. Method 25A of 40 CFR part 60, appendix A may be used for transfer racks as detailed in paragraph (e)(2)(iii)(D) of this section. The procedures specified in paragraphs (e)(2)(iii)(A) through (D) of this section shall be used to calculate parts per million by volume concentration, corrected to 3 percent oxygen if a combustion device is the control device and supplemental combustion air is used to combust the emissions.

(A) *Sampling time.* For continuous unit operations and for a combination of both continuous and batch unit operations, the minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15 minute intervals during the run.

(B) *Concentration calculation.* The concentration of either TOC (minus methane or ethane) or total organic regulated material shall be calculated according to paragraph (e)(2)(iii)(B) (*1*) or (*2*) of this section.

(*1*) The TOC concentration (C_{TOC}) is the sum of the concentrations of the individual components and shall be computed for each run using Equation 2.

$$C_{TOC} = \sum_{i=1}^{x} \frac{\left(\sum_{j=1}^{n} C_{ji} \right)}{x} \qquad \text{[Eq. 2]}$$

Where:

C_{TOC} = Concentration of TOC (minus methane and ethane), dry basis, parts per million by volume.

x = Number of samples in the sample run.

n = Number of components in the sample.

C_{ji} = Concentration of sample components j of sample I, dry basis, parts per million by volume.

(*2*) The total organic regulated material (C_{REG}) shall be computed according to Equation 2 in paragraph (e)(2)(iii)(B)(*1*) of this section except that only the regulated species shall be summed.

(C) *Concentration correction calculation.* The concentration of TOC or total organic regulated material, as applicable, shall be corrected to 3 percent oxygen if a combustion device is the control device and supplemental combustion air is used to combust the emissions.

(*1*) The emission rate correction factor (or excess air), integrated sampling and analysis procedures of Method 3B of 40 CFR part 60, appendix A, shall be used to determine the oxygen concentration. The sampling site shall be the same as that of the organic regulated material or organic compound samples, and the samples shall be taken during the same time that the organic regulated material or organic compound samples are taken.

(*2*) The concentration corrected to 3 percent oxygen (C_c) shall be computed using Equation 3.

$$C_c = C_m \left(\frac{17.9}{20.9 - \%O_{2d}} \right) \qquad \text{[Eq. 3]}$$

Where:

C_c = Concentration of TOC or organic regulated material corrected to 3 percent oxygen, dry basis, parts per million by volume.

C_m = Concentration of TOC (minus methane and ethane) or organic regulated material, dry basis, parts per million by volume.

$\%O_{2d}$ = Concentration of oxygen, dry basis, percentage by volume.

(D) *Transfer racks.* Method 25A of 40 CFR part 60, appendix A may be used for the purpose of determining compliance with a parts per million by volume limit for transfer racks. If Method 25A of 40 CFR part 60, appendix A is used, the procedures specified in paragraphs (e)(2)(iii)(D) (*1*) through (*4*) of this section shall be used to calculate the concentration of organic compounds (C_{TOC}):

(*1*) The principal organic regulated material in the vent stream shall be used as the calibration gas.

(*2*) The span value for Method 25A of 40 CFR part 60, appendix A, shall be between 1.5 and 2.5 times the concentration being measured.

(*3*) Use of Method 25A of 40 CFR part 60, appendix A, is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(*4*) The concentration of TOC shall be corrected to 3 percent oxygen using the procedures and Equation 3 in paragraph (e)(2)(iii)(C)(*2*) of this section if a combustion device is the control device and supplemental combustion air is used to combust emissions.

(iv) *Percent reduction calculation.* To determine compliance with a percent reduction requirement, the owner or operator shall use Method 18 of 40 CFR part 60, appendix A; alternatively, any other method or data that have been validated according to the applicable

procedures in Method 301 of appendix A of this part may be used. Method 25A or 25B of 40 CFR part 60, appendix A may be used for transfer racks as detailed in paragraph (e)(2)(iv)(E) of this section. Procedures specified in paragraphs (e)(2)(iv)(A) through (e)(2)(iv)(E) of this section shall be used to calculate percent reduction efficiency.

(A) *Sampling time.* The minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15-minute intervals during the run.

(B) *Mass rate of TOC or total organic regulated material.* The mass rate of either TOC (minus methane and ethane) or total organic regulated material (E_I, E_o) shall be computed as applicable.

(*1*) Equations 4 and 5 shall be used.

$$E_i = K_2\left(\sum_{j=1}^{n} C_{ij}M_{ij}\right)Q_i \qquad \text{[Eq. 4]}$$

$$E_o = K_2\left(\sum_{j=1}^{n} C_{oj}M_{oj}\right)Q_o \qquad \text{[Eq. 5]}$$

Where:

E_I, E_o = Emission rate of TOC (minus methane and ethane) (E_{TOC}) or emission rate of total organic regulated material (E_{RM}) in the sample at the inlet and outlet of the control device, respectively, dry basis, kilogram per hour.

K_2 = Constant, 2.494×10^{-6} (parts per million)$^{-1}$ (gram-mole per standard cubic meter) (kilogram per gram) (minute per hour), where standard temperature (gram-mole per standard cubic meter) is 20 °C.

n = Number of components in the sample.

C_{ij}, C_{oj} = Concentration on a dry basis of organic compound j in parts per million by volume of the gas stream at the inlet and outlet of the control device, respectively. If the TOC emission rate is being calculated, C_{ij} and C_{oj} include all organic compounds measured minus methane and ethane; if the total organic regulated material emissions rate is being calculated, only organic regulated material are included.

M_{ij}, M_{oj} = Molecular weight of organic compound j, gram per gram-mole, of the gas stream at the inlet and outlet of the control device, respectively.

Q_I, Q_o = Process vent flow rate, dry standard cubic meter per minute, at a temperature of 20° C, at the inlet and outlet of the control device, respectively.

(*2*) Where the mass rate of TOC is being calculated, all organic compounds (minus methane and ethane) measured by method 18 of 40 CFR part 60, appendix A, are summed using Equations 4 and 5 in paragraph (e)(2)(iv)(B)(*1*) of this section.

(*3*) Where the mass rate of total organic regulated material is being calculated, only the species comprising the regulated material shall be summed using Equations 4 and 5 in paragraph (e)(2)(iv)(B)(*1*) of this section.

(C) *Percent reduction in TOC or total organic regulated material for continuous unit operations and a combination of both continuous and batch unit operations.* For continuous unit operations and for a combination of both continuous and batch unit operations, the percent reduction in TOC (minus methane and ethane) or total organic regulated material shall be calculated using Equation 6.

$$R = \frac{E_i - E_o}{E_i}(100) \qquad \text{[Eq. 6]}$$

Where:

R = Control efficiency of control device, percent.

E_I = Mass rate of TOC (minus methane and ethane) or total organic regulated material at the inlet to the control device as calculated under paragraph (e)(2)(iv)(B) of this section, kilograms TOC per hour or kilograms organic regulated material per hour.

E_o = Mass rate of TOC (minus methane and ethane) or total organic regulated material at the outlet of the control device, as calculated under paragraph (e)(2)(iv)(B) of this section, kilograms TOC per hour or kilograms total organic regulated material per hour.

(D) *Vent stream introduced with combustion air or as secondary fuel.* If the vent stream entering a boiler or process heater with a design capacity less than 44 megawatts is introduced with the combustion air or as a secondary fuel, the weight-percent reduction of total organic regulated material or TOC (minus methane and ethane) across the device shall be determined by comparing the TOC (minus methane and ethane) or total organic regulated material in all combusted vent streams and primary and secondary fuels with the TOC (minus methane and ethane) or total organic regulated material exiting the combustion device, respectively.

(E) *Transfer racks.* Method 25A of 40 CFR part 60, appendix A, may also be used for the purpose of determining compliance with the percent reduction requirement for transfer racks.

(*1*) If Method 25A of 40 CFR part 60, appendix A, is used to measure the concentration of organic compounds (C_{TOC}), the principal organic regulated material in the vent stream shall be used as the calibration gas.

(*2*) An emission testing interval shall consist of each 15-minute period during the performance test. For each interval, a reading from each measurement shall be recorded.

(*3*) The average organic compound concentration and the volume measurement shall correspond to the same emissions testing interval.

(*4*) The mass at the inlet and outlet of the control device during each testing interval shall be calculated using Equation 7.

$$M_j = FKV_sC_t \qquad \text{[Eq. 7]}$$

Where:

M_j = Mass of organic compounds emitted during testing interval j, kilograms.

$F = 10^{-6}$ = Conversion factor, (cubic meters regulated material per cubic meters air) * (parts per million by volume)$^{-1}$.

K = Density, kilograms per standard cubic meter organic regulated material.

= 659 kilograms per standard cubic meter organic regulated material. (Note: The density term cancels out when the percent reduction is calculated. Therefore, the density used has no effect. The density of hexane is given so that it can be used to maintain the units of M_j.)

V_s = Volume of air-vapor mixture exhausted at standard conditions, 20 °C and 760 millimeters mercury, standard cubic meters.

C_t = Total concentration of organic compounds (as measured) at the exhaust vent, parts per million by volume, dry basis.

(*5*) The organic compound mass emission rates at the inlet and outlet of the control device shall be calculated using Equations 8 and 9 as follows:

$$E_i = \frac{\sum_{j=1}^{n} M_{ij}}{T} \qquad \text{[Eq. 8]}$$

$$E_o = \frac{\sum_{j=1}^{n} M_{oj}}{T} \qquad \text{[Eq. 9]}$$

Where:

E_i, E_o = Mass flow rate of organic compounds at the inlet (i) and outlet (o) of the control device, kilograms per hour.
n = Number of testing intervals.
M_{ij}, M_{oj} = Mass of organic compounds at the inlet (i) or outlet (o) during testing interval j, kilograms.
T = Total time of all testing intervals, hours.

(3) An owner or operator using a halogen scrubber or other halogen reduction device to control process vent and transfer rack halogenated vent streams in compliance with a referencing subpart, who is required to conduct a performance test to determine compliance with a control efficiency or emission limit for hydrogen halides and halogens, shall follow the procedures specified in paragraphs (e)(3) (i) through (iv) of this section.

(i) For an owner or operator determining compliance with the percent reduction of total hydrogen halides and halogens, sampling sites shall be located at the inlet and outlet of the scrubber or other halogen reduction device used to reduce halogen emissions. For an owner or operator determining compliance with a kilogram per hour outlet emission limit for total hydrogen halides and halogens, the sampling site shall be located at the outlet of the scrubber or other halogen reduction device and prior to any releases to the atmosphere.

(ii) Except as provided in paragraph (e)(1)(iv) of this section, Method 26 or Method 26A of 40 CFR part 60, appendix A, shall be used to determine the concentration, in milligrams per dry standard cubic meter, of total hydrogen halides and halogens that may be present in the vent stream. The mass emissions of each hydrogen halide and halogen compound shall be calculated from the measured concentrations and the gas stream flow rate.

(iii) To determine compliance with the percent removal efficiency, the mass emissions for any hydrogen halides and halogens present at the inlet of the halogen reduction device shall be summed together. The mass emissions of the compounds present at the outlet of the scrubber or other halogen reduction device shall be summed together. Percent reduction shall be determined by comparison of the summed inlet and outlet measurements.

(iv) To demonstrate compliance with a kilogram per hour outlet emission limit, the test results must show that the mass emission rate of total hydrogen halides and halogens measured at the outlet of the scrubber or other halogen reduction device is below the kilogram per hour outlet emission limit specified in a referencing subpart.

§ 63.998 Recordkeeping requirements.

(a) *Compliance assessment, monitoring, and compliance records.* (1) *Conditions of flare compliance assessment, monitoring, and compliance records.* Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of flare compliance assessments performed pursuant to § 63.987(b).

(i) *Flare compliance assessment records.* When using a flare to comply with this subpart, record the information specified in paragraphs (a)(1)(i)(A) through (C) of this section for each flare compliance assessment performed pursuant to § 63.987(b). As specified in § 63.999(a)(2)(iii)(A), the owner or operator shall include this information in the flare compliance assessment report.

(A) Flare design (i.e., steam-assisted, air-assisted, or non-assisted);

(B) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the flare compliance assessment; and

(C) All periods during the flare compliance assessment when all pilot flames are absent or, if only the flare flame is monitored, all periods when the flare flame is absent.

(ii) *Monitoring records.* Each owner or operator shall keep up to date and readily accessible hourly records of whether the monitor is continuously operating and whether the flare flame or at least one pilot flame is continuously present. For transfer racks, hourly records are required only while the transfer rack vent stream is being vented.

(iii) *Compliance records.* (A) Each owner or operator shall keep records of the times and duration of all periods during which the flare flame or all the pilot flames are absent. This record shall be submitted in the periodic reports as specified in § 63.999(c)(8).

(B) Each owner or operator shall keep records of the times and durations of all periods during which the monitor is not operating.

(2) *Nonflare control device performance test records.* (i) *Availability of performance test records.* Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests performed pursuant to §§ 63.988(b), 63.990(b), 63.994(b), or 63.995(b).

(ii) *Nonflare control device and halogen reduction device performance test records.* (A) *General requirements.* Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the data specified in (a)(2)(ii)(B) through (D) of this section, as applicable, measured during each performance test performed pursuant to §§ 63.988(b), 63.990(b), 63.994(b), or 63.995(b), and also include that data in the Notification of Compliance Status required under § 63.999(b). The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a combustion device, or the outlet concentration of TOC or regulated material is determined.

(B) *Nonflare combustion device.* Where an owner or operator subject to the provisions of this paragraph seeks to demonstrate compliance with a percent reduction requirement or a parts per million by volume requirement using a nonflare combustion device the information specified in (a)(2)(ii)(B)(*1*) through (*6*) of this section shall be recorded.

(*1*) For thermal incinerators, record the fire box temperature averaged over the full period of the performance test.

(*2*) For catalytic incinerators, record the upstream and downstream temperatures and the temperature difference across the catalyst bed averaged over the full period of the performance test.

(*3*) For a boiler or process heater with a design heat input capacity less than 44 megawatts and a vent stream that is not introduced with or as the primary fuel, record the fire box temperature averaged over the full period of the performance test.

(*4*) For an incinerator, record the percent reduction of organic regulated material, if applicable, or TOC achieved by the incinerator determined as specified in § 63.997(e)(2)(iv), as applicable, or the concentration of organic regulated material (parts per million by volume, by compound) determined as specified in § 63.997(e)(2)(iii) at the outlet of the incinerator.

(*5*) For a boiler or process heater, record a description of the location at which the vent stream is introduced into the boiler or process heater.

(*6*) For a boiler or process heater with a design heat input capacity of less than

44 megawatts and where the process vent stream is introduced with combustion air or used as a secondary fuel and is not mixed with the primary fuel, record the percent reduction of organic regulated material or TOC, or the concentration of regulated material or TOC (parts per million by volume, by compound) determined as specified in § 63.997(e)(2) at the outlet of the combustion device.

(C) *Other nonflare control devices.* Where an owner or operator seeks to use an absorber, condenser, or carbon adsorber as a control device, the information specified in paragraphs (a)(2)(ii)(C)(*1*) through (*5*) of this section shall be recorded, as applicable.

(*1*) Where an absorber is used as the control device, the exit specific gravity and average exit temperature of the absorbing liquid averaged over the same time period as the performance test (both measured while the vent stream is normally routed and constituted); or

(*2*) Where a condenser is used as the control device, the average exit (product side) temperature averaged over the same time period as the performance test while the vent stream is routed and constituted normally; or

(*3*) Where a carbon adsorber is used as the control device, the total regeneration stream mass flow during each carbon-bed regeneration cycle during the period of the performance test, and temperature of the carbon-bed after each regeneration during the period of the performance test (and within 15 minutes of completion of any cooling cycle or cycles; or

(*4*) As an alternative to paragraph (a)(2)(ii)(C)(*1*), (*2*), or (*3*) of this section, the concentration level or reading indicated by an organics monitoring device at the outlet of the absorber, condenser, or carbon adsorber averaged over the same time period as the performance test while the vent stream is normally routed and constituted.

(*5*) For an absorber, condenser, or carbon adsorber used as a control device, the percent reduction of regulated material achieved by the control device or concentration of regulated material (parts per million by volume, by compound) at the outlet of the control device.

(D) *Halogen reduction devices.* When using a scrubber following a combustion device to control a halogenated vent stream, record the information specified in paragraphs (a)(2)(ii)(D)(*1*) through (*3*) of this section.

(*1*) The percent reduction or scrubber outlet mass emission rate of total hydrogen halides and halogens as specified in § 63.997(e)(3).

(*2*) The pH of the scrubber effluent averaged over the time period of the performance test; and

(*3*) The scrubber liquid-to-gas ratio averaged over the time period of the performance test.

(3) *Recovery device monitoring records during TRE index value determination.* For process vents that require control of emissions under a referencing subpart, owners or operators using a recovery device to maintain a TRE above a level specified in the referencing subpart shall maintain the continuous records specified in paragraph (a)(3)(i) through (v) of this section, as applicable, and submit reports as specified in § 63.999(a)(2)(iii)(C).

(i) Where an absorber is the final recovery device in the recovery system and the saturated scrubbing fluid and specific gravity of the scrubbing fluid is greater than or equal to 0.02 specific gravity units, the exit specific gravity (or alternative parameter that is a measure of the degree of absorbing liquid saturation if approved by the Administrator) and average exit temperature of the absorbing liquid averaged over the same time period as the TRE index value determination (both measured while the vent stream is normally routed and constituted); or

(ii) Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature averaged over the same time period as the TRE index value determination while the vent stream is routed and constituted normally; or

(iii) Where a carbon adsorber is the final recovery device in the recovery system, the total regeneration stream mass flow during each carbon-bed regeneration cycle during the period of the TRE index value determination, and temperature of the carbon-bed after each regeneration during the period of the TRE index value determination (and within 15 minutes of completion of any cooling cycle or cycles); or

(iv) As an alternative to paragraph (a)(3)(i), (ii), or (iii) of this section, the concentration level or reading indicated by an organics monitoring device at the outlet of the absorber, condenser, or carbon adsorber averaged over the same time period as the TRE index value determination while the vent stream is normally routed and constituted.

(v) All measurements and calculations performed to determine the TRE index value of the vent stream as specified in a referencing subpart.

(4) *Halogen concentration records.* Record the halogen concentration in the vent stream determined according to the procedures specified in a referencing subpart. Submit this record in the Notification of Compliance Status, as specified in § 63.999(b)(4). If the owner or operator designates the vent stream as halogenated, then this shall be recorded and reported in the Notification of Compliance Status report.

(b) *Continuous records and monitoring system data handling.* (1) *Continuous records.* Where this subpart requires a continuous record, the owner or operator shall maintain a record as specified in paragraphs (b)(1)(i) through (iv) of this section, as applicable:

(i) A record of values measured at least once every 15 minutes or each measured value for systems which measure more frequently than once every 15 minutes; or

(ii) A record of block average values for 15-minute or shorter periods calculated from all measured data values during each period or from at least one measured data value per minute if measured more frequently than once per minute.

(iii) Where data is collected from an automated continuous parameter monitoring system, the owner or operator may calculate and retain block hourly average values from each 15-minute block average period or from at least one measured value per minute if measured more frequently than once per minute, and discard all but the most recent three valid hours of continuous (15-minute or shorter) records, if the hourly averages do not exclude periods of CPMS breakdown or malfunction. An automated CPMS records the measured data and calculates the hourly averages through the use of a computerized data acquisition system.

(iv) A record as required by an alternative approved under a referencing subpart.

(2) *Excluded data.* Monitoring data recorded during periods identified in paragraphs (b)(2)(i) through (iii) of this section shall not be included in any average computed to determine compliance with an emission limit in a referencing subpart.

(i) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;

(ii) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and

(iii) Start-ups, shutdowns, and malfunctions, if the owner or operator follows the applicable provisions of the start-up, shutdown, and malfunction plan required by a referencing subpart and maintains the records specified in paragraph (d)(3) of this section.

(3) *Records of daily averages.* In addition to the records specified in paragraph (a), owners or operators shall keep records as specified in paragraphs (b)(3)(i) and (ii) of this section and submit reports as specified in § 63.999(c), unless an alternative recordkeeping system has been requested and approved under a referencing subpart.

(i) Except as specified in paragraph (b)(3)(ii) of this section, daily average values of each continuously monitored parameter shall be calculated from data meeting the specifications of paragraph (b)(2) of this section for each operating day and retained for 5 years.

(A) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the period of operation per operating day if operation is not continuous (e.g., for transfer racks the average shall cover periods of loading). If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the daily average instead of all measured values.

(B) The operating day shall be the period defined in the operating permit or in the Notification of Compliance Status. It may be from midnight to midnight or another daily period.

(ii) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status or in the operating permit, the owner or operator may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that operating day. In such cases, the owner or operator may not discard the recorded values as allowed in paragraph (b)(1)(iii) of this section.

(4) [Reserved]

(5) *Alternative recordkeeping.* For any parameter with respect to any item of equipment associated with a process vent or transfer rack (except low throughput transfer loading racks), the owner or operator may implement the recordkeeping requirements in paragraphs (b)(5)(i) or (ii) of this section as alternatives to the recordkeeping provisions listed in paragraphs (b)(1) through (3) of this section. The owner or operator shall retain each record required by paragraphs (b)(5)(i) or (ii) of this section as provided in a referencing subpart.

(i) The owner or operator may retain only the daily average value, and is not required to retain more frequently monitored operating parameter values, for a monitored parameter with respect to an item of equipment, if the requirements of paragraphs (b)(5)(i)(A) through (F) of this section are met. The owner or operator shall notify the Administrator in the Notification of Compliance Status as specified in § 63.999(b)(5) or, if the Notification of Compliance Status has already been submitted, in the Periodic Report immediately preceding implementation of the requirements of this paragraph, as specified in § 63.999(c)(6)(iv).

(A) The monitoring system is capable of detecting unrealistic or impossible data during periods of operation other than start-ups, shutdowns or malfunctions (e.g., a temperature reading of −200° C on a boiler), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.

(B) The monitoring system generates a running average of the monitoring values, updated at least hourly throughout each operating day, that have been obtained during that operating day, and the capability to observe this average is readily available to the Administrator on-site during the operating day. The owner or operator shall record the occurrence of any period meeting the criteria in paragraphs (b)(5)(i)(B)(*1*) through (*3*) of this section. All instances in an operating day constitute a single occurrence.

(*1*) The running average is above the maximum or below the minimum established limits;

(*2*) The running average is based on at least six one-hour average values; and

(*3*) The running average reflects a period of operation other than a start-up, shutdown, or malfunction.

(C) The monitoring system is capable of detecting unchanging data during periods of operation other than start-ups, shutdowns or malfunctions, except in circumstances where the presence of unchanging data is the expected operating condition based on past experience (e.g., pH in some scrubbers), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.

(D) The monitoring system will alert the owner or operator by an alarm, if the running average parameter value calculated under paragraph (b)(5)(i)(B) of this section reaches a set point that is appropriately related to the established limit for the parameter that is being monitored.

(E) The owner or operator shall verify the proper functioning of the monitoring system, including its ability to comply with the requirements of paragraph (b)(5)(i) of this section, at the times specified in paragraphs (b)(5)(i)(E)(*1*) through (*3*) of this section. The owner or operator shall document that the required verifications occurred.

(*1*) Upon initial installation.

(*2*) Annually after initial installation.

(*3*) After any change to the programming or equipment constituting the monitoring system that might reasonably be expected to alter the monitoring system's ability to comply with the requirements of this section.

(F) The owner or operator shall retain the records identified in paragraphs (b)(5)(i)(F)(*1*) through (*4*) of this section.

(*1*) Identification of each parameter, for each item of equipment, for which the owner or operator has elected to comply with the requirements of paragraph (b)(5)(i) of this section.

(*2*) A description of the applicable monitoring system(s), and of how compliance will be achieved with each requirement of paragraph (b)(5)(i)(A) through (E) of this section. The description shall identify the location and format (e.g., on-line storage; log entries) for each required record. If the description changes, the owner or operator shall retain both the current and the most recent superseded description. The description, and the most recent superseded description, shall be retained as provided in the subpart that references this subpart, except as provided in paragraph (b)(5)(i)(F)(*1*) of this section.

(*3*) A description, and the date, of any change to the monitoring system that would reasonably be expected to affect its ability to comply with the requirements of paragraph (b)(5)(i) of this section.

(*4*) Owners and operators subject to paragraph (b)(5)(i)(F)(*2*) of this section shall retain the current description of the monitoring system as long as the description is current, but not less than 5 years from the date of its creation. The current description shall be retained on-site at all times or be accessible from a central location by computer or other means that provides access within 2 hours after a request. The owner or operator shall retain the most recent superseded description at least until 5 years from the date of its creation. The superseded description shall be retained on-site (or accessible from a central location by computer that provides access within 2 hours after a request) at least 6 months after being superseded.

Thereafter, the superseded description may be stored off-site.

(ii) If an owner or operator has elected to implement the requirements of paragraph (b)(5)(i) of this section, and a period of 6 consecutive months has passed without an excursion as defined in paragraph (b)(6)(i) of this section, the owner or operator is no longer required to record the daily average value for that parameter for that unit of equipment, for any operating day when the daily average value is less than the maximum, or greater than the minimum established limit. With approval by the Administrator, monitoring data generated prior to the compliance date of this subpart shall be credited toward the period of 6 consecutive months, if the parameter limit and the monitoring were required and/or approved by the Administrator.

(A) If the owner or operator elects not to retain the daily average values, the owner or operator shall notify the Administrator in the next Periodic Report, as specified in § 63.999(c)(6)(i). The notification shall identify the parameter and unit of equipment.

(B) If there is an excursion as defined in paragraph (b)(6)(i) of this section on any operating day after the owner or operator has ceased recording daily averages as provided in paragraph (b)(5)(ii) of this section, the owner or operator shall immediately resume retaining the daily average value for each operating day, and shall notify the Administrator in the next Periodic Report, as specified in § 63.999(c). The owner or operator shall continue to retain each daily average value until another period of 6 consecutive months has passed without an excursion as defined in paragraph (b)(6)(i) of this section.

(C) The owner or operator shall retain the records specified in paragraphs (b)(5)(i)(A) through (F) of this section for the duration specified in a referencing subpart. For any week, if compliance with paragraphs (b)(5)(i)(A) through (D) of this section does not result in retention of a record of at least one occurrence or measured parameter value, the owner or operator shall record and retain at least one parameter value during a period of operation other than a start-up, shutdown, or malfunction.

(6)(i) For the purposes of this section, an excursion means that the daily average value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value, except as provided in paragraphs (b)(6)(i)(A) and (B) of this section.

(A) The daily average value during any start-up, shutdown or malfunction shall not be considered an excursion if the owner or operator follows the applicable provisions of the start-up, shutdown, and malfunction plan required by a referencing subpart and maintains the records specified in paragraph (d)(3) of this section.

(B) An excused excursion, as described in paragraph (b)(6)(ii), does not count toward the number of excursions for the purposes of this subpart.

(ii) One excused excursion for each control device or recovery device for each semiannual period is allowed. If a source has developed a start-up, shutdown and malfunction plan, and a monitored parameter is outside its established range or monitoring data are not collected during periods of start-up, shutdown, or malfunction (and the source is operated during such periods in accordance with the start-up, shutdown, and malfunction plan) or during periods of nonoperation of the process unit or portion thereof (resulting in cessation of the emissions to which monitoring applies), then the excursion is not a violation and, in cases where continuous monitoring is required, the excursion does not count as the excused excursion for determining compliance.

(c) *Nonflare control and recovery device regulated source monitoring records.* (1) *Monitoring system records.* For process vents and high throughput transfer racks, the owner or operator subject to this subpart shall keep the records specified in this paragraph, as well as records specified elsewhere in this subpart.

(i) For a CPMS used to comply with this part, a record of the procedure used for calibrating the CPMS.

(ii) For a CPMS used to comply with this subpart, records of the information specified in paragraphs (c)(ii)(A) through (H) of this section, as indicated in a referencing subpart.

(A) The date and time of completion of calibration and preventive maintenance of the CPMS.

(B) The ''as found'' and ''as left'' CPMS readings, whenever an adjustment is made that affects the CPMS reading and a ''no adjustment'' statement otherwise.

(C) The start time and duration or start and stop times of any periods when the CPMS is inoperative.

(D) Records of the occurrence and duration of each start-up, shutdown, and malfunction of CPMS used to comply with this subpart during which excess emissions (as defined in a referencing subpart) occur.

(E) For each start-up, shutdown, and malfunction during which excess emissions as defined in a referencing subpart occur, records whether the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. These records may take the form of a ''checklist,'' or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.

(F) Records documenting each start-up, shutdown, and malfunction event.

(G) Records of CPMS start-up, shutdown, and malfunction event that specify that there were no excess emissions during the event, as applicable.

(H) Records of the total duration of operating time.

(2) *Combustion control and halogen reduction device monitoring records.* (i) Each owner or operator using a combustion control or halogen reduction device to comply with this subpart shall keep the following records up-to-date and readily accessible, as applicable. Continuous records of the equipment operating parameters specified to be monitored under §§ 63.988(c) (incinerator, boiler, and process heater monitoring), 63.994(c) (halogen reduction device monitoring), and 63.995(c) (other combustion systems used as control device monitoring) or approved by the Administrator in accordance with a referencing subpart.

(ii) Each owner or operator shall keep records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in paragraph (b)(3)(i) of this section. For catalytic incinerators, record the daily average of the temperature upstream of the catalyst bed and the daily average of the temperature differential across the bed. For halogen scrubbers record the daily average pH and the liquid-to-gas ratio.

(iii) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of periods of operation during which the parameter boundaries are exceeded. The parameter boundaries are established pursuant to § 63.996(c)(6).

(3) *Monitoring records for recovery devices, absorbers, condensers, carbon adsorbers or other noncombustion systems used as control devices.* (i) Each owner or operator using a recovery device to achieve and maintain a TRE index value greater than the control applicability level specified in the referencing subpart but less than 4.0 or using an absorber, condenser, carbon adsorber or other non-combustion

system as a control device shall keep readily accessible, continuous records of the equipment operating parameters specified to be monitored under §§ 63.990(c) (absorber, condenser, and carbon adsorber monitoring), 63.993(c) (recovery device monitoring), or 63.995(c) (other noncombustion systems used as a control device monitoring) or as approved by the Administrator in accordance with a referencing subpart. For transfer racks, continuous records are required while the transfer vent stream is being vented.

(ii) Each owner or operator shall keep records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in paragraph (b)(3)(i) of this section. If carbon adsorber regeneration stream flow and carbon bed regeneration temperature are monitored, the records specified in paragraphs (c)(3)(ii)(A) and (B) of this section shall be kept instead of the daily averages.

(A) Records of total regeneration stream mass or volumetric flow for each carbon-bed regeneration cycle.

(B) Records of the temperature of the carbon bed after each regeneration and within 15 minutes of completing any cooling cycle.

(iii) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of periods of operation during which the parameter boundaries are exceeded. The parameter boundaries are established pursuant to § 63.996(c)(6).

(d) *Other records.* (1) *Closed vent system records.* For closed vent systems the owner or operator shall record the information specified in paragraphs (d)(1)(i) through (iv) of this section, as applicable.

(i) For closed vent systems collecting regulated material from a regulated source, the owner or operator shall record the identification of all parts of the closed vent system, that are designated as unsafe or difficult to inspect, an explanation of why the equipment is unsafe or difficult to inspect, and the plan for inspecting the equipment required by § 63.983(b)(2)(ii) or (iii) of this section.

(ii) For each closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the owner or operator shall keep a record of the information specified in either paragraph (d)(1)(ii)(A) or (B) of this section, as applicable.

(A) Hourly records of whether the flow indicator specified under § 63.983(a)(3)(i) was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating.

(B) Where a seal mechanism is used to comply with § 63.983(a)(3)(ii), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has been broken.

(iii) For a closed vent system collecting regulated material from a regulated source, when a leak is detected as specified in § 63.983(d)(2), the information specified in paragraphs (d)(1)(iii)(A) through (F) of this section shall be recorded and kept for 5 years.

(A) The instrument and the equipment identification number and the operator name, initials, or identification number.

(B) The date the leak was detected and the date of the first attempt to repair the leak.

(C) The date of successful repair of the leak.

(D) The maximum instrument reading measured by the procedures in § 63.983(c) after the leak is successfully repaired or determined to be nonrepairable.

(E) ''Repair delayed'' and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(F) Copies of the Periodic Reports as specified in § 63.999(c), if records are not maintained on a computerized database capable of generating summary reports from the records.

(iv) For each instrumental or visual inspection conducted in accordance with § 63.983(b)(1) for closed vent systems collecting regulated material from a regulated source during which no leaks are detected, the owner or operator shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(2) *Storage vessel and transfer rack records.* An owner or operator shall keep readily accessible records of the information specified in paragraphs (d)(2)(i) and (ii) of this section, as applicable.

(i) A record of the measured values of the parameters monitored in accordance with § 63.985(c) or § 63.987(c).

(ii) A record of the planned routine maintenance performed on the control system during which the control system does not meet the applicable specifications of §§ 63.983(a), 63.985(a), or 63.987(a), as applicable, due to the planned routine maintenance. Such a record shall include the information specified in paragraphs (d)(2)(ii)(A) through (C) of this section. This information shall be submitted in the Periodic Reports as specified in § 63.999(c)(4).

(A) The first time of day and date the requirements of §§ 63.983(a), § 63.985(a), or § 63.987(a), as applicable, were not met at the beginning of the planned routine maintenance, and

(B) The first time of day and date the requirements of §§ 63.983(a), 63.985(a), or 63.987(a), as applicable, were met at the conclusion of the planned routine maintenance.

(C) A description of the type of maintenance performed.

(3) *Regulated source and control equipment start-up, shutdown and malfunction records.* (i) Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment or of air pollution control equipment used to comply with this part during which excess emissions (as defined in a referencing subpart) occur.

(ii) For each start-up, shutdown, and malfunction during which excess emissions occur, records that the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. For example, if a start-up, shutdown, and malfunction plan includes procedures for routing control device emissions to a backup control device (e.g., the incinerator for a halogenated stream could be routed to a flare during periods when the primary control device is out of service), records must be kept of whether the plan was followed. These records may take the form of a ''checklist,'' or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.

(4) *Equipment leak records.* The owner or operator shall maintain records of the information specified in paragraphs (d)(4)(i) and (ii) of this section for closed vent systems and control devices if specified by the equipment leak provisions in a

referencing subpart. The records specified in paragraph (d)(4)(i) of this section shall be retained for the life of the equipment. The records specified in paragraph (d)(4)(ii) of this section shall be retained for 5 years.

(i) The design specifications and performance demonstrations specified in paragraphs (d)(4)(i)(A) through (C) of this section.

(A) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams.

(B) The dates and descriptions of any changes in the design specifications.

(C) A description of the parameter or parameters monitored, as required in a referencing subpart, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(ii) Records of operation of closed vent systems and control devices, as specified in paragraphs (d)(4)(ii)(A) through (C) of this section.

(A) Dates and durations when the closed vent systems and control devices required are not operated as designed as indicated by the monitored parameters.

(B) Dates and durations during which the monitoring system or monitoring device is inoperative.

(C) Dates and durations of start-ups and shutdowns of control devices required in this subpart.

(5) *Records of monitored parameters outside of range.* The owner or operator shall record the occurrences and the cause of periods when the monitored parameters are outside of the parameter ranges documented in the Notification of Compliance Status report. This information shall also be reported in the Periodic Report.

§ 63.999 Notifications and other reports.

(a) *Performance test and flare compliance assessment notifications and reports.* (1) *General requirements.* General requirements for performance test and flare compliance assessment notifications and reports are specified in paragraphs (a)(1)(i) through (iii) of this section.

(i) The owner or operator shall notify the Administrator of the intention to conduct a performance test or flare compliance assessment at least 30 days before such a compliance demonstration is scheduled to allow the Administrator the opportunity to have an observer present. If after 30 days notice for such an initially scheduled compliance demonstration, there is a delay (due to operational problems, etc.) in conducting the scheduled compliance demonstration, the owner or operator of an affected facility shall notify the Administrator as soon as possible of any delay in the original demonstration date. The owner or operator shall provide at least 7 days prior notice of the rescheduled date of the compliance demonstration, or arrange a rescheduled date with the Administrator by mutual agreement.

(ii) Unless specified differently in this subpart or a referencing subpart, performance test and flare compliance assessment reports, not submitted as part of a Notification of Compliance Status report, shall be submitted to the Administrator within 60 days of completing the test or determination.

(iii) Any application for a waiver of an initial performance test or flare compliance assessment, as allowed by § 63.997(b)(2), shall be submitted no later than 90 days before the performance test or compliance assessment is required. The application for a waiver shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the source performing the test.

(iv) Any application to substitute a prior performance test or compliance assessment for an initial performance test or compliance assessment, as allowed by § 63.997(b)(1), shall be submitted no later than 90 days before the performance test or compliance test is required. The application for substitution shall include information demonstrating that the prior performance test or compliance assessment was conducted using the same methods specified in § 63.997(e) or § 63.987(b)(3), as applicable. The application shall also include information demonstrating that no process changes have been made since the test, or that the results of the performance test or compliance assessment reliably demonstrate compliance despite process changes.

(2) *Performance test and flare compliance assessment report submittal and content requirements.* Performance test and flare compliance assessment reports shall be submitted as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) For performance tests or flare compliance assessments, the Notification of Compliance Status or performance test and flare compliance assessment report shall include one complete test report as specified in paragraph (a)(2)(ii) of this section for each test method used for a particular kind of emission point and other applicable information specified in (a)(2)(iii) of this section. For additional tests performed for the same kind of emission point using the same method, the results and any other information required in applicable sections of this subpart shall be submitted, but a complete test report is not required.

(ii) A complete test report shall include a brief process description, sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

(iii) The performance test or flare compliance assessment report shall also include the information specified in (a)(2)(iii)(A) through (C) of this section, as applicable.

(A) For flare compliance assessments, the owner or operator shall submit the records specified in § 63.998(a)(1)(i).

(B) For nonflare control device and halogen reduction device performance tests as required under §§ 63.988(b), 63.990(b), 63.994(b), or 63.995(b), also submit the records specified in § 63.998(a)(2)(ii), as applicable.

(C) For recovery devices also submit the records specified in § 63.998(a)(3), as applicable.

(b) *Notification of Compliance Status.* (1) *Routing storage vessel or transfer rack emissions to a process or fuel gas system.* An owner or operator who elects to comply with § 63.982 by routing emissions from a storage vessel or transfer rack to a process or to a fuel gas system, as specified in § 63.984, shall submit as part of the Notification of Compliance Status the information specified in paragraphs (b)(1)(i) and (ii), or (iii) of this section, as applicable.

(i) If storage vessels emissions are routed to a process, the owner or operator shall submit the information specified in § 63.984(b)(2) and (3).

(ii) As specified in § 63.984(c), if storage vessels emissions are routed to a fuel gas system, the owner or operator shall submit a statement that the emission stream is connected to the fuel gas system and whether the conveyance system is subject to the requirements of § 63.983.

(iii) As specified in § 63.984(c), report that the transfer rack emission stream is being routed to a fuel gas system or process, when complying with a referencing subpart.

(2) *Routing storage vessel or low throughput transfer rack emissions to a nonflare control device.* An owner or

operator who elects to comply with § 63.982 by routing emissions from a storage vessel or low throughput transfer rack to a nonflare control device, as specified in § 63.985, shall submit, with the Notification of Compliance Status required by a referencing subpart, the applicable information specified in paragraphs (b)(2)(i) through (vi) of this section. Owners and operators who elect to comply with § 63.985(b)(1)(i) by submitting a design evaluation shall submit the information specified in paragraphs (b)(2)(i) through (iv) of this section. Owners and operators who elect to comply with § 63.985(b)(1)(ii) by submitting performance test results from a control device for a storage vessel or low throughput transfer rack shall submit the information specified in paragraphs (b)(2)(i), (ii), (iv), and (v) of this section. Owners and operators who elect to comply with § 63.985(b)(1)(ii) by submitting performance test results from a shared control device shall submit the information specified in paragraph (b)(2)(vi) of this section.

(i) A description of the parameter or parameters to be monitored to ensure that the control device is being properly operated and maintained, an explanation of the criteria used for selection of that parameter (or parameters), and the frequency with which monitoring will be performed (e.g., when the liquid level in the storage vessel is being raised). If continuous records are specified, indicate whether the provisions of § 63.999(c)(6) apply.

(ii) The operating range for each monitoring parameter identified in the monitoring plan required by § 63.985(c)(1). The specified operating range shall represent the conditions for which the control device is being properly operated and maintained.

(iii) The documentation specified in § 63.985(b)(1)(i), if the owner or operator elects to prepare a design evaluation.

(iv) The provisions of paragraph (c)(6) of this section do not apply to any low throughput transfer rack for which the owner or operator has elected to comply with § 63.985 or to any storage vessel for which the owner or operator is not required, by the applicable monitoring plan established under § 63.985(c)(1), to keep continuous records. If continuous records are required, the owner or operator shall specify in the monitoring plan whether the provisions of paragraph (c)(6) of this section apply.

(v) A summary of the results of the performance test described in § 63.985(b)(1)(ii). If such a performance test is conducted, submit the results of the performance test, including the information specified in § 63.999(a)(2)(ii) and (iii).

(vi) Identification of the storage vessel or transfer rack and control device for which the performance test will be submitted, and identification of the emission point(s), if any, that share the control device with the storage vessel or transfer rack and for which the performance test will be conducted.

(3) *Operating range for monitored parameters.* The owner or operator shall submit as part of the Notification of Compliance Status, the operating range for each monitoring parameter identified for each control, recovery, or halogen reduction device as determined pursuant to § 63.996(c)(6). The specified operating range shall represent the conditions for which the control, recovery, or halogen reduction device is being properly operated and maintained. This report shall include the information in paragraphs (b)(3)(i) through (iii) of this section, as applicable, unless the range and the operating day have been established in the operating permit.

(i) The specific range of the monitored parameter(s) for each emission point;

(ii) The rationale for the specific range for each parameter for each emission point, including any data and calculations used to develop the range and a description of why the range indicates proper operation of the control, recovery, or halogen reduction device, as specified in paragraphs (b)(3)(ii)(A), (B), or (C) of this section, as applicable.

(A) If a performance test or TRE index value determination is required by a referencing subpart for a control, recovery or halogen reduction device, the range shall be based on the parameter values measured during the TRE index value determination or performance test and may be supplemented by engineering assessments and/or manufacturer's recommendations. TRE index value determinations and performance testing are not required to be conducted over the entire range of permitted parameter values.

(B) If a performance test or TRE index value determination is not required by a referencing subpart for a control, recovery, or halogen reduction device, the range may be based solely on engineering assessments and/or manufacturer's recommendations.

(C) The range may be based on ranges or limits previously established under a referencing subpart.

(iii) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

(4) *Halogen reduction device.* The owner or operator shall submit as part of the Notification of Compliance Status the information recorded pursuant to § 63.998(a)(4).

(5) *Alternative recordkeeping.* The owner or operator shall notify the Administrator in the Notification of Compliance Status if the alternative recordkeeping requirements of § 63.998(b)(5) are being implemented. If the Notification of Compliance Status has already been submitted, the notification must be in the periodic report submitted immediately preceding implementation of the alternative, as specified in paragraph (c)(6)(iv) of this section.

(c) *Periodic reports.* (1) Periodic reports shall include the reporting period dates, the total source operating time for the reporting period, and, as applicable, all information specified in this section and in the referencing subpart, including reports of periods when monitored parameters are outside their established ranges.

(2) For closed vent systems subject to the requirements of § 63.983, the owner or operator shall submit as part of the periodic report the information specified in paragraphs (c)(2)(i) through (iii) of this section, as applicable.

(i) The information recorded in § 63.998(d)(1)(iii)(B) through (E);

(ii) Reports of the times of all periods recorded under § 63.998(d)(1)(ii)(A) when the vent stream is diverted from the control device through a bypass line; and

(iii) Reports of all times recorded under § 63.998(d)(1)(ii)(B) when maintenance is performed in car-sealed valves, when the seal is broken, when the bypass line valve position is changed, or the key for a lock-and-key type configuration has been checked out.

(3) For flares subject to this subpart, report all periods when all pilot flames were absent or the flare flame was absent as recorded in § 63.998(a)(1)(i)(C).

(4) For storage vessels, the owner or operator shall include in each periodic report required the information specified in paragraphs (c)(4)(i) through (iii) of this section.

(i) For the 6-month period covered by the periodic report, the information recorded in § 63.998(d)(2)(ii)(A) through (C).

(ii) For the time period covered by the periodic report and the previous periodic report, the total number of hours that the control system did not meet the requirements of §§ 63.983(a),

63.985(a), or 63.987(a) due to planned routine maintenance.

(iii) A description of the planned routine maintenance during the next 6-month periodic reporting period that is anticipated to be performed for the control system when it is not expected to meet the required control efficiency. This description shall include the type of maintenance necessary, planned frequency of maintenance, and expected lengths of maintenance periods.

(5) If a control device other than a flare is used to control emissions from storage vessels or low throughput transfer racks, the periodic report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with paragraph (b)(3) of this section. The description shall include the information specified in paragraphs (c)(5)(i) and (ii) of this section.

(i) Identification of the control device for which the measured parameters were outside of the established ranges, and

(ii) The cause for the measured parameters to be outside of the established ranges.

(6) For process vents and transfer racks (except low throughput transfer racks), periodic reports shall include the information specified in paragraphs (c)(6)(i) through (iv) of this section.

(i) Periodic reports shall include the daily average values of monitored parameters, calculated as specified in § 63.998(b)(3)(i) for any days when the daily average value is outside the bounds as defined in § 63.998(c)(2)(iii) or (c)(3)(iii), or the data availability requirements defined in paragraphs (c)(6)(i)(A) through (D) of this section are not met, whether these excursions are excused or unexcused excursions. For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified. An excursion means any of the cases listed in paragraphs (c)(6)(i)(A) through (C) of this section. If the owner or operator elects not to retain the daily average values pursuant to § 63.998(b)(5)(ii)(A), the owner or operator shall report this in the periodic report.

(A) When the daily average value of one or more monitored parameters is outside the permitted range.

(B) When the period of control or recovery device operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours.

(C) When the period of control or recovery device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data.

(D) Monitoring data are insufficient to constitute a valid hour of data as used in paragraphs (c)(6)(i)(B) and (C) of this section, if measured values are unavailable for any of the 15-minute periods within the hour.

(ii) Report all carbon-bed regeneration cycles during which the parameters recorded under § 63.998(a)(2)(ii)(C) were outside the ranges established in the Notification of Compliance Status or in the operating permit.

(iii) The provisions of paragraph (c)(6)(i) and (ii) of this section do not apply to any low throughput transfer rack for which the owner or operator has elected to comply with § 63.985 or to any storage vessel for which the owner or operator is not required, by the applicable monitoring plan established under § 63.985(c)(1), to keep continuous records. If continuous records are required, the owner or operator shall specify in the monitoring plan whether the provisions of paragraphs (c)(6)(i) and (c)(6)(ii) of this section apply.

(iv) If the owner or operator has chosen to use the alternative recordkeeping requirements of § 63.998(b)(5), and has not notified the Administrator in the Notification of Compliance Status that the alternative recordkeeping provisions are being implemented as specified in paragraph (b)(5) of this section, the owner or operator shall notify the Administrator in the periodic report submitted immediately preceding implementation of the alternative. The notifications specified in § 63.998(b)(5)(ii) shall be included in the next Periodic Report following the identified event.

(7) As specified in § 63.997(c)(3), if an owner or operator at a facility not required to obtain a title V permit elects at a later date to replace an existing control or recovery device with a different control or recovery device, then the Administrator shall be notified by the owner or operator before implementing the change. This notification may be included in the facility's periodic reporting.

(d) *Requests for approval of monitoring alternatives.* (1) *Alternatives to the continuous operating parameter monitoring and recordkeeping provisions.* Requests for approval to use alternatives to continuous operating parameter monitoring and recordkeeping provisions, as provided for in § 63.996(d)(1), shall be submitted as specified in a referencing subpart, and the referencing subpart will govern the review and approval of such requests. The information specified in paragraphs (d)(1)(i) and (ii) of this section shall be included.

(i) A description of the proposed alternative system; and

(ii) Information justifying the owner or operator's request for an alternative method, such as the technical or economic infeasibility, or the impracticality, of the regulated source using the required method.

(2) *Monitoring a different parameter than those listed.* Requests for approval to monitor a different parameter than those established in § 63.996(c)(6) of this section or to set unique monitoring parameters, as provided for in § 63.996(d)(2), shall be submitted as specified as specified in a referencing subpart, and the referencing subpart will govern the review and approval of such requests. The information specified in paragraphs (d)(2)(i) through (iii) of this section shall be included in the request.

(i) A description of the parameter(s) to be monitored to ensure the control technology or pollution prevention measure is operated in conformance with its design and achieves the specified emission limit, percent reduction, or nominal efficiency, and an explanation of the criteria used to select the parameter(s);

(ii) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device, the schedule for this demonstration, and a statement that the owner or operator will establish a range for the monitored parameter(s) as part of the Notification of Compliance Status if required under a referencing subpart, unless this information has already been submitted; and

(iii) The frequency and content of monitoring, recording, and reporting, if monitoring and recording is not continuous, or if reports of daily average values when the monitored parameter value is outside the established range will not be included in periodic reports under paragraph (c) of this section. The rationale for the proposed monitoring, recording, and reporting system shall be included.

3. Part 63 is amended by adding subpart TT to read as follows:

Subpart TT—National Emission Standards for Equipment Leaks—Control Level 1

Sec.